

BULLETIN 1964-1965

# DICKINSON COLLEGE

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CARLISLE, PENNSYLVANIA

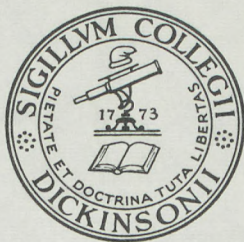


# COLLEGE CALENDAR

1964-1965

FALL SEMESTER OPENS	Monday, September 14, 1964
REGISTRATION	Monday, September 14, 1964, 9:00 A.M.
COLLEGE CONVOCATION	Wednesday, September 16, 1964, 2:30 P.M.
CLASSES BEGIN	Thursday, September 17, 1964, 8:00 A.M.
MATRICULATION SERVICE	Sunday, September 20, 1964
THANKSGIVING RECESS	Wednesday, November 25, 1964, 12:00 Noon to Monday, November 30, 1964, 8:00 A.M.
CHRISTMAS RECESS	Friday, December 18, 1964, 12:00 Noon to Tuesday, January 5, 1965, 8:00 A.M.
CLASSES CLOSE	Saturday, January 16, 1965, 12:00 Noon
EXAMINATIONS BEGIN	Monday, January 18, 1965
EXAMINATIONS CLOSE	Friday, January 29, 1965
FALL SEMESTER ENDS	Saturday, January 30, 1965
SPRING SEMESTER OPENS	Monday, February 1, 1965
SPRING RECESS	Friday, March 26, 1965, 12:00 Noon to Monday, April 5, 1965, 8:00 A.M.
FOUNDERS' DAY	Thursday, April 29, 1965
CLASSES CLOSE	Saturday, May 22, 1965, 12:00 Noon
FINAL EXAMINATIONS BEGIN	Monday, May 24, 1965, 8:00 A.M.
EXAMINATIONS CLOSE	Wednesday, June 2, 1965, 5:00 P.M.
COMMENCEMENT	Sunday, June 6, 1965
FALL SEMESTER OPENS	Monday, September 13, 1965





# DICKINSON COLLEGE BULLETIN

*One Hundred Ninety-first Edition  
1773-1964*

*ANNUAL CATALOGUE ISSUE  
1964-1965*

*Volume LVII, No. 3*

DICKINSON COLLEGE BULLETIN

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March, 1964





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Dickinson College is accredited by the Middle Atlantic States Association of Colleges and Secondary Schools, the University Senate of the Methodist Church, the Pennsylvania Department of Public Instruction, the University of the State of New York, and the American Chemical Society.





# Dickinson College

1773-1964

DICKINSON COLLEGE was chartered in 1783 "for the education of youth in the learned and foreign languages, the useful arts, sciences and literature." The College was pledged, at that time, to do its part in promoting the security and welfare of the new nation through "virtuous principle and liberal knowledge instilled into the minds of the rising generation."

To this pledge of its founders the College firmly adheres. As an independent liberal arts college in the Christian tradition, its faculty and students unite in the search for truth, in the nurture of intellectual vitality, and in the stimulation of philosophic and scientific inquiry. The College seeks to cultivate the mind toward depth of knowledge from which emerges mature and creative intellectual activity, and to foster that breadth of understanding from which arises a love and respect for humanity.

Dedicated to upholding, through education, the leadership and civic strength of a free people, DICKINSON COLLEGE accepts, "under the direction and government of Divine Providence," its obligation to meet the widening needs of today and tomorrow.

On March 3, 1773, Thomas and John Penn, Proprietors of Pennsylvania, conveyed to nine trustees a plot of ground in Carlisle "for the

purpose of keeping and maintaining a Grammar School." This school for instruction in classical languages came under the principalship of James Ross, a distinguished author of Latin and Greek grammars. It continued in operation until it was absorbed by the College, which was incorporated by the Legislature of Pennsylvania on September 9, 1783. Seven of the nine Grammar School trustees became trustees of the College.

The prime mover in the effort to obtain a college charter was the distinguished Dr. Benjamin Rush of Philadelphia, a signer of the Declaration of Independence and one of the country's leading physicians. He had the College named for his friend, John Dickinson, Esq., "in memory of the great and important services rendered to his country." Dickinson was the author of the famous *Letters from a Farmer in Pennsylvania to the Inhabitants of the British Colonies*, one of the most potent documents in arousing patriotism in the Colonies. He was also a general in the Revolutionary War, principal draftsman of the Articles of Confederation, President of the Supreme Executive Council of Pennsylvania, President of Delaware, and later a signer of the Constitution of the United States. When the charter was granted, Dickinson was elected President of the Board of Trustees, an office he held until his death.

Dr. Charles Nisbet of Montrose, Scotland, a Scotch Presbyterian and one of the great scholars of his time, was the first President of the College. From the beginning the new College prospered under the aggressive intellectual leadership of Dr. Nisbet. Twenty years after its inception the College had outgrown the confines of the Grammar School building. The present main campus of the College was purchased from the Penn family in 1799 for \$151.50, and the construction of a large brick building was begun. This building was destroyed by fire in 1803, and when the Trustees appealed for subscriptions for a new building, the appeal met with wide response. President Thomas Jefferson, members of his cabinet, and Chief Justice John Marshall were among the contributors. In place of the old building the present West College was erected as designed by Benjamin H. Latrobe, the architect of the Capitol at Washington. The new college building was constructed of native limestone and is today regarded as one of the outstanding examples of Georgian architecture in America. During the Civil War, on June 28, 1863, the Confederates occupied Carlisle and camped in front of Old West, the northern-most point reached by Confederate troops during the war. Among the Confederate troops were former Dickinson students at whose request Old



West was put under protective guard. Two days later, in the shelling of Carlisle, East College and old South College were damaged by shellfire. Following the Battle of Gettysburg, the college buildings were used as hospitals for wounded men from the battlefield.

In 1962 the United States Department of the Interior designated Old West as a Registered National Historic Landmark.

The years intervening since the founding of the College, with their enriching knowledge of science and the arts and the demonstrated need for strengthened moral and spiritual fibre, have extended the college vision. A faculty and administration which seeks to foster the values of the Western and Christian tradition, a philosophy of higher education informed by the liberating influences of the Christian faith, and an appreciation for the richness and multiplicity in which truth is to be found combine to achieve these ends. Formal and informal training on the Dickinson Campus are thus directed toward creating men and women graduates of sound intellectual attainment with integrity of character, a mature religious understanding, and a commitment to social responsibility.

By its charter the College is an independent, privately-controlled institution. Since 1833 it has been related to The Methodist Church.



# General Information

**REGISTRATION** Under normal conditions, registration is completed prior to the beginning of classes. However, changes in registration (or late registration) are permitted provided they are made within the first fifteen class days.

**CHAPEL** DICKINSON COLLEGE is committed to the worship of God which it considers to be an integral part of educating the whole man. The College Chapel, located on the Benjámín Rush Campus, symbolizes this vital concern.

A College-centered service of worship is held weekly with sermons by the Chaplain, members of the Faculty, renowned preachers, and scholars of the country.

**GUIDANCE** The student is the center of the College's educational program. Counseling begins with the pre-registration interview with the Dean of Admissions. Each entering freshman is assigned to a Faculty Adviser who will assist him in his academic planning. To help attain a better understanding of each freshman as a person, he is given psychological tests early in the school year. The results of these tests are made available to him through the office of the Director of Counseling, where further aid is given as needed in coping with problems of educational, vocational, or personal counseling. A corps of highly selected upperclassmen serve in the residence halls as Student Counselors. When the student is accepted as a department major, which occurs ordinarily at the close of his second year, the Chairman of the Department becomes his academic adviser. Completing the formal advisory staff, which is headed by the Dean of Students, are a number of specialists, including the Dean of Men and the Dean of Women, the Director of Counseling, the Religious Adviser, the Placement Officer, and advisers in such pre-professional interests as medicine, law, and engineering. This formal advisory system does not, however, replace the individual faculty member, who daily performs a wide variety of informal counseling made possible by the limited enrollment of the College. The whole guidance program is thus designed to help the individual to effective adjustment and successful accomplishment.



**GOVERNMENT AND DISCIPLINE** Students are expected to conform to the requirements of good morals and good citizenship. In the absence of specific regulations, the Faculty is charged with passing on matters respecting the general life of the students in the College. In practice, however, the regulation of student body life is left largely to the students themselves. Among the regulations of the College is the following: "In particular, any use of intoxicating liquor on college property or in the fraternity houses, failure to give truthful testimony to an officer of the College, and dishonesty in college work are considered very serious offenses, and may lead to dismissal."

The College reserves to itself the right to remove from its rolls at any time a student who proves unsatisfactory, or to require a student to withdraw if it is felt that the student is out of sympathy with the spirit and ideals of the College, even though he may not have broken any formal rules.

*It is understood that the foregoing conditions and other rules and regulations of Dickinson College are accepted by the parents and guardians of Dickinson College students and by the students themselves.*

**SELF-HELP EMPLOYMENT** Self-help through employment in various departments of the College is available to students, applications for which should be made to the office of the Dean of Students. As it is assumed that the acceptance of such employment is to assist the student in meeting his college bills, any amounts so earned are subject to application to the student's account as long as he has any unpaid balance.

**PLACEMENT** The interest of the College in its students does not terminate with graduation. The Dean of Students co-ordinates the areas of placement and is assisted by the Dean of Men, the Dean of Women, the Director of Counseling, and the Director of Student Teaching. Vocational guidance and counseling are available to students who request the service under the supervision of the Director of Counseling assisted by the Dean of Men, the Dean of Women, and a Vocational Counselor. Vocational guidance materials and information are kept up to date in the office of the Director of Counseling.

The placement of teachers in secondary schools is coordinated through the Dean of Men's Office and the Department of Psychology and Education.

**HEALTH SERVICE** The College Health Center is designed to provide care to all full time students in case of minor illness or accident. A dispensary and waiting room are located on the first floor. The second and third floors contain wards and private rooms for patients.

The medical staff of the College consists of five physicians, a consulting psychiatrist and two registered nurses. The service of the physicians is available without cost to all full time students under regulations

fixed by the College. The College provides these health services, but does not assume legal responsibility for the health of its students. For special treatment, laboratory tests, x-rays, and serious illness, the Carlisle Hospital is available at cost. Students who do not wish to use the health benefits of the College may make other arrangements on their own responsibility.

In cases of prolonged illness, the student and his parents or guardians must make direct arrangements for medical service and care. The college service does not cover these cases, nor does it cover fees for specialists or for special prescriptions or treatments, laboratory tests, x-rays, etc.

**ACCIDENTS** Arrangements have been made by the College with the Insurance Company of North America to provide accident insurance policies. The annual fee for such policies is \$14 for men and \$7 for women. All students are required to avail themselves of this offer, since the College can assume no liability for expenses connected with accidents. In case a student requests a release from this regulation because he already has insurance, or because his parents do not desire it, a signed statement from his parents concerning this is necessary.





# Dickinson Activities Program

## PHI BETA KAPPA SOCIETY

ON April 13, 1887, the first chapter of the Phi Beta Kappa Society in Pennsylvania was organized at DICKINSON COLLEGE and named the Alpha of Pennsylvania. Seniors of high scholastic standing are eligible for membership and are usually elected upon completion of their college course. Certain of the highest ranking students, however, may be elected in September.

## STUDENT GOVERNMENT

Students at Dickinson College govern wide areas of student life on the campus through representative student government. The Student Assembly, which consists of all students of the College, is the primary agency of this government and meets on call when required to act upon constitutional questions. The executive body of the Student Assembly is the Student Senate which carries on the day-to-day business of student government. As such it promotes the welfare of the student body by effecting a close union among students, and acts as an official liaison group between students and college authority. The Senate acts for the Assembly in scheduling and regulating all organized student activities. It controls the Student Activities Budget. Various standing committees operate for, and are directly responsible to, the Senate. Two student government agencies of major importance are the Student Social Committee and the Interfraternity Council. Both operate under the general oversight of the Student Senate with large freedom of action within their special fields of interest and concern.

## STUDENT-FACULTY JUDICIAL COUNCIL

Matters of student discipline, except cases of failure to meet routine administrative directives or grave offenses involving moral integrity, are referred by the Dean of Students to the Student-Faculty Judicial Council, which is composed of four students and three members of the faculty. The findings of the Council are binding upon all students and organizations of students brought before it on charges. On appeal the findings may be modified or set aside by the Appeals Board consisting of an elected

faculty member, the president of the Student Senate, and the Dean of Students.

## WOMEN'S STUDENT GOVERNMENT

The Presidents' Council is the over-all student governing body for the women's residence halls. The Council consists of three council officers and the presidents of each of the women's residence halls. Meeting weekly with the Dean of Women, the Council acts on problems referred to it by the various house councils. The house council in each dormitory is responsible for the smooth operation of student government within the residence hall, takes care of minor infractions of house rules and works toward high morale and an informal social program within the residence.

## FRESHMAN DORMITORY COUNCIL

The Freshman Dormitory Council, comprised of an elected representative from each dormitory counselor group, is the student-governing body for the freshman men's residence halls. This group is responsible for the self-government of the dormitories and works closely with the counselors and the office of the Dean of Men. The Council is responsible for the enforcement of established rules and acts as a recommending disciplinary body in cases of infractions. An additional basic responsibility is that of the maintenance of an informal social program.

## PUBLICATIONS

**The Dickinson Alumnus:** published quarterly by the General Alumni Association.

**The Dickinson College Bulletin:** published four times a year by the College.

**A Handbook of Academic and Social Rules.**

**The Mermaid's Tale:** published annually for the information of new and old students.

**The Dickinsonian:** the student newspaper, published weekly during the college year.

**The Daily Senator:** a single sheet of announcements, scores, and late news, published five mornings a week by the Student Senate.

**The Microcosm:** the college annual, sponsored by the Junior Class.

## ORGANIZATIONS

**The Student Religious Affairs Council,** with advice and counsel of the College Chaplain and a committee of faculty members, plans and operates most of the college-wide religious activities on the campus. This Council is composed of six students representing the student body at large and a representative of each of the following religious organizations: Methodist Student Movement, Canterbury Club, Westminster Fellowship, Luther Club, Catholic Club, Inter-Varsity Christian Fellowship, and Jewish Affairs Council. The Council plans weekly chapels, special religious emphasis programs, service and social action projects, and other aspects of the college-wide interfaith religious program.



**Literary Societies** The Belles Lettres Society and the Union Philosophical Society, founded in 1786 and 1789 respectively, are the oldest student activities on the campus and have contributed to the intellectual development of Dickinsonians for over a century and a half. The former is devoted to literary criticism, the latter to matters of political debate.

**The Mermaid Players** present three major productions a year under professional direction, in addition to several seasonal programs. Opportunities exist for training and for practical experience in all phases of dramatic production, and membership is open to students, faculty members, and guests from the community. An annual feature is the presentation of the Gould Memorial Prizes in Drama.

**The Debate Council**, under the guidance of a college-appointed director, participates in an extensive program of intercollegiate debating. All students are eligible for membership; those students with good scholastic averages are eligible to travel with the squad. Dual debates and tournaments are scheduled with other colleges throughout the East and South.

**Musical Activities** A variety of opportunities for participation in vocal and instrumental ensembles are open to Dickinson students. These include the College Choir, the Concert Chorale, the Women's Glee Club, an opera workshop, the Concert Band,



the College-Community Orchestra, and a Collegium Musicum. The Men's Glee Club, an organization specializing in college songs, presents fall and spring concerts on campus, sings at various meetings and gatherings, and makes guest appearances off campus.

**The International Relations Club**, established in 1932 under the auspices of the Carnegie Endowment for International Peace, promotes the study of contemporary international affairs and world problems. In its monthly meetings, reports are presented by students, faculty members, or guest speakers, and these are followed by an informal discussion. The Dickinson I.R.C. is a member of the Association of International Relations Clubs, sponsored by the Foreign Policy Association.

**The Mohler Scientific Society**, through monthly meetings which are open to all students, fosters an interest in scientific subjects. Its programs are particularly stimulating to science majors and pre-professional students.

**The Student National Educational Association, Benjamin Rush Chapter**, offers all students considering teaching as a vocation an opportunity to hear distinguished educators and to participate in practical discussions on the teaching profession.

**The Association of The United States Army ROTC Company** is open to all junior and senior ROTC students. Through its monthly meetings with Army guest speakers and field trips to Army installations an exchange of ideas and information is gained to bring about a better understanding of the proper role of the Army of the United States.

**The Pershing Rifles** is open to all freshman and sophomore students. Through its weekly drill meets it encourages, preserves, and develops the highest ideals of the military profession.

**The "D" Club**, composed of students who have won a varsity letter, recognizes athletic ability, encourages sportsmanship, and generally seeks to further the total athletic program of the College.

**The Dickinson Follies** produces each spring either an original musical comedy, written and directed by the students, or a revival.

**The Aquatic Club** gives its members an opportunity to swim and also to organize and participate in water pageantry.

**Fraternities** Ten national fraternities have chapters at Dickinson—Phi Kappa Sigma, Phi Kappa Psi, Sigma Chi, Beta Theta Pi, Phi Delta Theta, Sigma Alpha Epsilon, Kappa Sigma, Alpha Chi Rho, Phi Epsilon Pi, and Theta Chi.

**Sororities** Four national sororities are represented on the campus—Pi Beta Phi, Chi Omega, Phi Mu, and Beta Tau Alpha.

**The Independent Men** Men who choose not to affiliate with any fraternity meet together periodically. They elect a senator to student government. Membership is open to all non-affiliated resident and non-resident male students.

## HONORARIES

*In addition to Phi Beta Kappa, there are nine national honorary fraternities and three local honorary societies at Dickinson:*

**Tau Kappa Alpha** National honorary fraternity for forensic and scholastic attainments;

**Omicron Delta Kappa** National fraternity for men students who have achieved distinction in campus leadership and have maintained good scholastic averages;

**Pi Delta Epsilon** National fraternity recognizing outstanding service in the field of journalism;

**Delta Phi Alpha** National fraternity honoring students in German studies;

**Alpha Psi Omega** National honorary fraternity recognizing outstanding dramatic activity;

**Pi Gamma Mu** National fraternity honoring students in Social Science;

**Phi Mu Alpha Sinfonia** National fraternity for men, honoring students in music;

**Sigma Delta Pi** National fraternity honoring students in Spanish;

**Pi Delta Phi** National society honoring students in French;

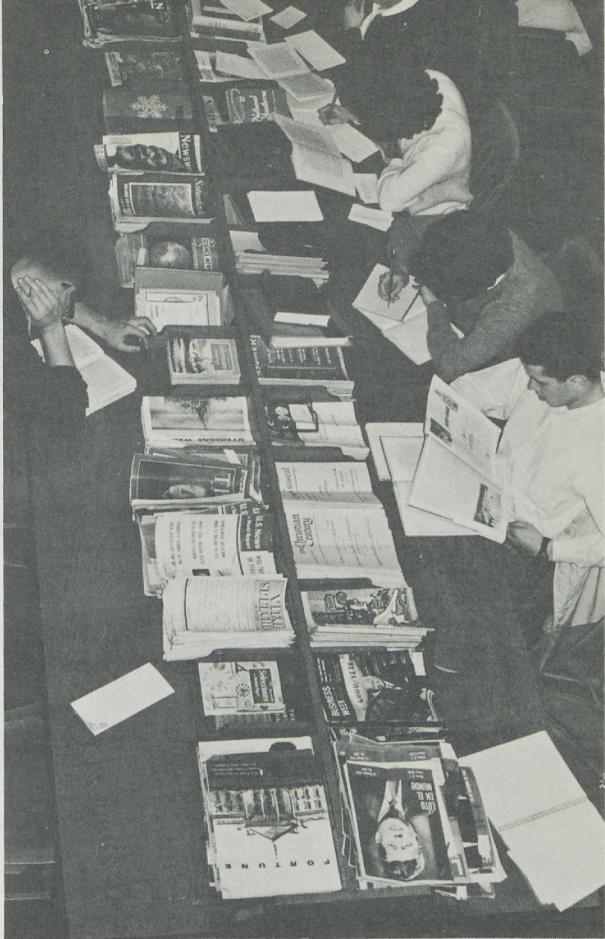
**Raven's Claw** Senior honorary society for men;

**Skull and Key** Junior honorary society for men;

**Wheel and Chain** Senior honorary society for women.



# College Library



The College Library, located in Bosler Hall, contained 130,239 volumes and received 687 periodicals as of June 30, 1963. It has been designated as a depository for United States Government publications.

The Reference Room of 4,050 volumes adjoins the Main Reading Room. The Reserved Book Room provides space for the study of class reading assignments. Microfilm, microcards, and recordings are also kept here, as well as equipment for their use.

The Alexander A. Sharp Recreational Reading Room offers opportunities for browsing among books and periodicals of general interest. A tea and coffee hour, held in the Sharp Room on Thursday afternoons, brings students and faculty together.

Interlibrary loan service is supported by teletype facilities affording rapid communication with other libraries.

Rare books, manuscripts, and other special collections, known collectively as the Spahr Library, are located on the second and third floors of the building, with the Boyd Lee Spahr Room as its central feature. Here may be seen the original Dickinson College library, consisting of 1,971 volumes given by John and Mary Dickinson in 1784. Here also are about 50,000 manuscripts, including autographs of all the Presidents of the United States, 307 letters and documents of James Buchanan, of the Class of 1809, letters of founders and alumni of the College, and of general historical importance. Nearby, books by and about alumni, faculty, and trustees are shelved in a special arrangement. Visitors to the Spahr Room will see many relics of the long history of the College, including the unique collection of eighteenth-century scientific equipment purchased in 1811 from the heirs of Joseph Priestley. Other components of the Spahr Library are the Rare Book Room, the English Research Room, and the American History Seminar Room.

The Art Seminar Room contains an art library of over 2,000 volumes, and the Art Department's collection of photographs. Color slides and original works of art are stored nearby.

The Alfred Victor duPont Chemistry Reading Room, given in 1957 by Irénée duPont, is located in nearby Althouse Hall.

The Dickinson College Library Guild, an association of friends of the Library, was organized in 1903 for the purpose of creating a permanent endowment for the purchase of books. The Library now receives an annual income of over \$5,000 from this source.

The Library Handbook is especially recommended to entering students. Upper classmen frequently receive additional specialized instruction in research bibliography.

The Library is open from 8:00 A.M. to 10:45 P.M., except Saturday, when it is open from 8:00 A.M. to 5:00 P.M., and on Sunday, when the hours are 1:00 P.M. to 10:45 P.M.





# Buildings & Equipment

THE plant of the College, consisting of thirty-five buildings, is constructed chiefly of limestone, in Georgian design. The John Dickinson Campus, on which seven of the college buildings are located, is framed by a low limestone wall, most of which was erected in 1833. This adds to the distinctive charm of the landscape. The other buildings are grouped around this campus and on the Benjamin Rush Campus, a twelve-acre tract diagonally across from the older campus. The grounds, buildings, and equipment of the College are conservatively appraised in excess of \$7,400,000 with invested endowment and other capital funds worth approximately \$6,000,000 in market value.



# Admission

The minimum requirement for entrance to DICKINSON COLLEGE is the satisfactory completion of a secondary school program of at least fifteen units, including four units of English, two units of one foreign language, and two units of college preparatory mathematics. Of the remaining seven units, six are to be from academic courses.

However, experience indicates it is unusual for a student to apply for admission fulfilling only the minimal requirements. Indeed, those applicants whose preparation has included advanced programs of study in all areas are most successful in their quest for admission.

Regular candidates should apply prior to February 15 of their senior year. Early Decision candidates must apply prior to December 1 of their senior year.

In considering applicants for admission to the College, all of the following factors are important:

1. Formal application and school record on forms supplied by the College. (NOTE: Applicants are required to include with their application a fee of \$10. This application fee is not refundable nor is it credited to any account.)
2. Recommendation of the secondary school principal or headmaster, and of others who know the applicant.
3. Personal interview with the Dean of Admissions or with an appointed representative.



The Admissions Office is open for interviews from 9:30 to 11:30 A.M., Monday, Friday, and Saturday, and 2:00 to 4:00 P.M., Monday and Friday. During the summer months and until Labor Day, the Admissions Office (and all administrative offices) will be closed on Saturdays. Appointments in advance of the interview are appreciated.

4. The tests of the College Entrance Examination Board:  
The Scholastic Aptitude Test is required of all applicants. Although the results of this test taken in the junior year may be submitted for Early Decision, it is required that all admissions candidates take the Scholastic Aptitude Test again in their senior year, preferably in December, and certainly no later than January.  
The Achievement Tests are necessary for placement purposes. The English Achievement Test is required of all applicants. If the continued study of a foreign language (classical or modern) is desired, an achievement test in that language is also required. Mathematics Achievement Tests are required of all students who wish to continue the study of mathematics in college.  
Application and schedules for these examinations may be obtained by writing to the College Entrance Examination Board, P. O. Box 592, Princeton, New Jersey.  
Unusual cases involving divergence from these requirements will be considered on an individual basis by the Committee on Admissions. Students from other lands should submit requests as early as possible in order that they may be furnished a copy of the special instructions pertinent to them.

5. Participation in Advanced Placement Program: A student who achieves a grade of four or five on a College Entrance Examination Board Advanced Placement Test will receive credit for college work in the appropriate course. The credit will normally be equivalent to a full-year college course.

A student who achieves a grade of three on a College Entrance Examination Board Advanced Placement Test will receive credit for college work in the appropriate course dependent upon departmental evaluation and recommendation.

Subject matter areas for which no Advanced Placement Examinations exist, and which have been taken at an advanced level, upon petition may be evaluated by the relevant department for advanced status.

Credit granted in accordance with the above statements of policy will satisfy the corresponding graduation or distribution requirements. In addition, such course credit will satisfy the prerequisites requirement in that department for advanced work.

# Charges and Expenses

THE yearly General Charge at the College is \$1,450\*. All students are required to pay a Registration Fee of \$100 which is credited on the college bill. This fee is not returnable if the student cancels his or her registration.

NOTE—The General Charge is \$1,450\* for the academic year of two semesters. However, the cost *to the College* is considerably over the amount. This leaves a balance which must be made up each year from gifts by alumni or friends or from income on endowment (which is composed of gifts made in former years). Those parents who wish to assist the College in meeting this “additional cost of education over General Charges” may make a gift to the College. This gift is tax deductible.

*All college bills are due and must be paid in full before registration each semester.*

Failure to adjust college bills when due will result in exclusion from College, and no student can have an honorable dismissal or a certificate of advancement until bills have been adjusted and other reasonable obligations have been met.

The Trustees reserve the right at any time to amend or add to the regulations of the College, including those concerning fees and methods of payment, and to make such changes applicable to students at present in the College, as well as to new students.

**DISCOUNTS** For two or more students from the same family, and for children of full-time licensed, ordained, and active ministers, a discount of 10 per cent is allowed on the General Charges account, but not on any other part of the college bill. No double discount is allowed. Liberal scholarship aid may be made available to ministerial students.

**ROOMS** Rooms are secured to the students during term-time only, and occupants are responsible for damage to them. When students damaging property are unknown, the cost of repairs may be assessed toward the close of the college year upon the whole body of students, as a special damage account. Any student proved to be guilty of willful destruction of, or damage to, college property, may be required to pay not only the cost of replacement or repair, but also a fine as determined by the

\*Payable \$100 at registration, \$725 at the beginning of the first semester, and \$625 at the beginning of the second semester.



Faculty, said fine to be placed to the credit of the special damage account.

All freshman men other than day students are required to room in the college residence for freshmen. Male members of the other classes who are not day students must room either in the college residences or in the fraternity houses, or in college approved private homes.

## APPLICATION FEES

Dickinson requires a non-refundable service charge of \$10 from all candidates for admission. This fee defrays in part the expense of investigating records, of advising applicants, and the performance of other services provided by the Office of Admissions. It is not returnable and is not credited on any subsequent bill.

*Checks should be made payable to Dickinson College.*

## FEES

Comprehensive Student Fee, annually \$150.00

This fee covers such items as the health fee, athletics, cultural affairs, student publications, dramatics, social and other student activities, the student activities building, and loss, damage, and breakage replacement. All students, whether special or degree-candidates, are required to pay the fee if they register for a course load of 12 or more semester hours.

Transcript of Record, extra copies each	\$1.00
Practice Teaching in High School	35.00
Graduation Fee for seniors, including use of cap and gown	10.00
Partial program, per semester hour	50.00
Late changing of courses (dropping one and adding another)	5.00
but not to exceed	15.00
Changing of schedule	15.00
Late writing of schedule	15.00
Administrative charges for Law elections, per hour	24.00
ROTC Fee, one semester only	5.00
Service Charge, payable on all unpaid accounts after 9/10	8.00
Automobile Registration Fee, annually	25.00

## FOR MEN RESIDENTS IN COLLEGE

Room rent, men residents, per semester \$175.00

Resident men are assigned to residence space by the Dean of Men. The same price for all space, whether the quarters are old or new, is to permit an equitable system of room assignments without reference to family income.

Rooms are furnished with the basic pieces of furniture, and there is a study light outlet for each student, in addition to a ceiling light. Personal items such as pillows, laundry, books, blankets, sheets, pillow cases, towels, and personal toilet articles are furnished by the individual student.\*

\*Each year the College approves a linen service company for voluntary linen subscription by parents.

## FOR WOMEN IN RESIDENCE HALLS

All women students, except those living with their husbands or relatives, are required to reside in college residence halls. Room rent, women residents, per semester—\$175.00. Personal items such as pillows, laundry, blankets, sheets, pillow cases, towels, are not included in this account.\*

*Returning students must pay the Registration Fee of \$100 prior to room selection for the ensuing year.*

## THE METZGER FUND

Established in 1963 by the Metzger College Trustees in memory of George Metzger of the Class of 1798 of Dickinson College, who made a testamentary provision for the establishment of a college for the education of young women after his decease. By action of the Board of Trustees of Metzger College in 1913, use of the Metzger College building, Metzger Hall, as a residence hall for women students was granted to Dickinson College. Fifty years later, Dickinson College relinquished its use of Metzger Hall and the property was sold, the proceeds from the sale being used to establish the George Metzger Endowment Fund. Administration of this Fund remains in the hands of the Metzger College Trustees, but to perpetuate the intent of the late George Metzger, the income from the Fund is made available to Dickinson College for the improvement and maintenance of its women's residence halls.

## BOARD

All resident students are required to board at the college dining hall. Boarding arrangements include dining room service on a semester basis. Charges for the semester are \$250.

The College also reserves the right to make a proportionate increase in board charges in the event that there shall occur a general increase in food costs.

A Snack Bar is operated in the Student Center where students may purchase breakfast, lunch, and dinner at nominal prices.

## WHAT DOES IT COST TO GO TO DICKINSON?

Just how much it will cost for a year at DICKINSON COLLEGE depends on the individual student. The general answer is, from \$2,535 to \$2,700 minimum for a year of two semesters. The amount spent above these figures will depend on the expenditures the student feels he must make over and above the minimum costs.

**\*Each year the College approves a linen service company for voluntary linen subscription by parents.**



## PART-TIME STUDENTS

Full time students are those carrying at least 12 hours of instruction per week. Part-time students are those carrying fewer than 12 hours of instruction per week.

Auditors' fees are the same as those listed for credit courses. Full time students are not required to pay audit fees.

## PLAN OF PAYMENTS

All charges and fees are due at Registration. Where a satisfactory plan is presented to the Treasurer of the College, a student is permitted to register under a deferred payment agreement with a Service Charge added. The Girard Trust Plan, The Insured Tuition Payment Plan, and other approved plans are acceptable. Additional information on these plans is obtainable from the Admissions and Treasurer's offices.

## WITHDRAWAL FROM COLLEGE

A student in good standing is entitled to honorable withdrawal at all times. The date on which the Dean of the College approves the student's withdrawal form is the official date of withdrawal. A student desiring to withdraw voluntarily from the College must obtain from the Registrar an Application for Withdrawal. This form must be properly filled in and returned to the Registrar before the student leaves the campus. No refunds will be made by the Business Office until the Registrar's Office certifies that the withdrawal procedure has been properly completed.

Every college has many expenses of a continuing nature, such as plant maintenance and faculty salaries. In order to plan and maintain these services over the entire year, it is essential that the annual income from fees be assured. It is understood, therefore, that students are entered for the entire college year. Consequently, the College is not in a position to refund fees already paid or to cancel obligations for unpaid fees.

If a student called away during the semester by an emergency finds it impossible to resume his work, he must notify the Registrar's Office of his voluntary withdrawal immediately. Unless the notice is filed with the Registrar within three weeks, the student will forfeit his right to honorable withdrawal.

If the withdrawal occurs before the end of the semester, the student is obligated for General Charges as follows:

	<i>First Semester</i>	<i>Second Semester</i>
Two weeks or less	\$285	\$990
Between two and three weeks	420	1,105
Between three and four weeks	555	1,220
Between four and five weeks	690	1,335
Over five weeks	825	1,450

No refund will be allowed on room rentals and fees, but unused board at \$5.00 per week may be refunded.

**SUMMER SESSIONS:** Scholarships and discounts are not applied to accounts in summer session charges. If withdrawal occurs before the end of the summer session, the student is obligated for General Charges as follows:

One week or less	40 per cent
Two weeks or less	80 per cent
After two weeks	100 per cent

Special consideration is given men called into military service involuntarily whereby fractional credit may be given for work carried at a passing level.

No reduction will be allowed for absence of students withdrawn for unsatisfactory conduct or scholarship.

## SOLICITATIONS

Agents are not permitted to solicit students on the campus or in the residence halls without first securing written permission from the Treasurer's Office and from the Dean of Men or the Dean of Women, as appropriate.

## LOSSES

Dickinson College will not be responsible for losses from fire or theft that may occur in or on college property.





# PRIESTLEY AWARD

Each spring a special commemoration, known as the Joseph Priestley Celebration, is held, at which time the Dickinson College Award in memory of Joseph Priestley, the discoverer of oxygen, is given to a distinguished scientist for his discoveries or contributions to the welfare of mankind. The Award is in the form of the Priestley Medallion, prepared of ceramic struck from the original molds made in 1775 by the first Josiah Wedgwood after a pen sketch of Priestley drawn from life in the same year by John Flaxman. The Award is accompanied by a draft for one thousand dollars. Since its establishment in 1952 the Award has been presented to the following persons:

- 1952 Sir Hugh Stott Taylor, Dean of the Graduate School of Princeton University.
- 1953 Paul R. Burkholder, of the Class of 1924, in 1953 Osborne Professor of Botany at Yale University, Discoverer of Chloromycetin.
- 1954 Karl T. Compton, Chairman of the Corporation, Massachusetts Institute of Technology.
- 1955 Harold C. Urey, of the University of Chicago, Nobel Prize winner in Chemistry.
- 1956 Detlev W. Bronk, President of Rockefeller Institute for Medical Research.
- 1957 Edward Teller, General Advisory Committee, Atomic Energy Commission.
- 1958 George Bogdan Kistiakowski, Abbott and James Lawrence Professor of Chemistry, Harvard University.
- 1959 Willard Frank Libby, member Atomic Energy Commission.
- 1960 Glenn T. Seaborg, Chancellor and Professor of Chemistry, University of California.
- 1961 Maurice Ewing, Professor of Geology, Columbia University.
- 1962 Robert B. Woodward, Donner Professor of Science, Harvard University.
- 1963 Kenneth S. Pitzer, President of Rice University.
- 1964 Isador I. Rabi, Higgins Professor of Physics, Columbia University; Nobel Prize, 1944.

# ARTS AWARD

In order that the College might recognize achievement in the arts as well as in the sciences, members of the faculty undertook the establishment of the Dickinson College Arts Award to honor Dr. William W. Edel for his services to the College as President. This Award in the arts, like the Dickinson College Award in the sciences in memory of Joseph Priestley, is in the form of a Wedgwood ceramic medallion and the sum of one thousand dollars. Trustees of the College have supported the purpose of the Award by personally raising an endowment of sufficient size to provide the annual fund. Since its establishment in 1959 the Award has been presented to the following persons:

1958-59 Robert Lee Frost  
1960-61 Dame Judith Anderson

1959-60 Eero Saarinen  
1963-64 Leonard Baskin



*President Rubendall, right, with Leonard Baskin, 1963 Arts Award Winner*



# Programs of Study and Lectureships

As a liberal arts college, Dickinson provides its students with a broad general program of study. This plan gives assurance that each student becomes familiar with the major areas of human knowledge and gains the background for realization of the aims set forth in the college purpose. After these foundations are laid he is encouraged, particularly in the upper levels of college work, to seek a deeper understanding of a particular field through specialized study.

Special attention is given to students preparing for graduate work on the university level, law, medicine or dentistry, the ministry, and teaching. Plans of study have been carefully worked out to meet graduate or certification requirements for these fields. Excellent background courses are also offered for government, business, social service, journalism, medical technology, and similar careers. Each year a high percentage of the graduating class continue formal study in professional and graduate schools throughout the country. All students, however, whether interested in a terminal liberal arts education or in aiming at intensive specialization later on, must comply with the rules governing distribution and concentration of courses.

## MEDICAL SCIENCES

Through the years many Dickinson students have been prepared for graduate study in the healing arts. Schools of medicine, dentistry, osteopathy, optometry, podiatry, and nursing vary in their admission requirements. Admission to professional schools is generally based on a student's college record, the recommendations of faculty members, scores attained on an aptitude test, and interviews by an admissions officer. Pre-medical and predental students are advised to elect chemistry in their first year and to register with the Premedical Adviser before completing their course schedules.

## COLLEGE-LAW SCHOOL PROGRAM

A student at DICKINSON COLLEGE planning a law career has distinct advantages. The location of the Dickinson School of Law (a separate institution) contiguous to the college campus has made possible the development of a combined college-law program which has the approval of the State Board of Law Examiners of Pennsylvania.

Under this program a student, if accepted by the School of Law, may register for six semester hours of law in his Junior year; and (1) if his college average in the Junior year is between 2.25 and 2.75, and (2) if his grades in all his law courses are 60% or better, he may elect 18 hours of law courses in his Senior year. If his average in his college courses in the Junior year is 2.75 or better and his grades in all law courses are 60% or better, he may elect from 18 to 24 hours of law courses in the Senior year, thus making possible the completion of a full year of law by the time he meets the requirements for graduation from the College. A student who elects no law courses in the Junior year may take as many as six hours of law in his Senior year. In no instance may the total number of class hours carried simultaneously in the College and Law School exceed 18 hours per week.

The combined plan is available only to the student who enters College not later than the beginning of the Sophomore year. If he elects the combined plan, he must register his intention with his department Adviser and secure permission of the Dean of the College and the Dean of the Law School. The student taking the combined program is advised to elect English 25 and to complete the college requirements of distribution and concentration. An extra charge, payable to the Treasurer of the College, is made if the student elects courses in the Law School to count toward his college degree.

## MINISTRY AND RELIGIOUS SERVICE

A broad base of training in the liberal arts is required as undergraduate preparation for entrance either into a theological seminary or into a training school for religious social work. No particular course is prescribed for preministerial students. They may profitably major in any of the following fields: Philosophy, Psychology, English, Sociology, History, or Political Science. To be adequately prepared for advanced studies in a theological seminary, they should elect two years of Greek and from 15 to 18 hours in the Department of Philosophy and Religion. A thorough training in Public Speaking also is recommended.

## PROGRAMS FOR ENGINEERING STUDENTS

DICKINSON COLLEGE furnishes a program for engineering students which combines the advantages of the smaller liberal arts college with the training to be secured at a large urban engineering school. By arrangement with the University of Pennsylvania Engineering Schools, Rensselaer Polytechnic Institute, and the Case Institute of Technology, the College offers a five-year course, the first three years of which are spent at Dickinson, the final two at the engineering school selected. The combined plan recognizes the defects inherent in specialization in the engineering schools, and provides for the Dickinson student a generous background in pure



science, in the humanities, and in the social sciences. Thus in five years the engineering student may secure a degree in liberal arts from DICKINSON COLLEGE and one in engineering from the engineering school which he attends.

The combined plan is available only to the student who enters the College not later than the beginning of his Sophomore year. Candidates for an engineering program should inform the Dean of Admissions of DICKINSON COLLEGE that they wish to apply for this program so they may be assigned to the Engineering Student Adviser. The student in his Freshman year should take Physics 11-12 and Mathematics 11-12. Students interested in this program should request from the Dickinson Admissions Office a special booklet which describes the "Three-Two Engineering Plan" in greater detail and gives suggested course schedules.

### TEACHER CERTIFICATION

The Department of Education offers an undergraduate program leading to the Provisional Secondary Teacher's Certificate. This program has met certificate requirements in many states, including Pennsylvania, New Jersey, New York, Maryland, Delaware, and Virginia. Adequate professional preparation is sought but the main emphasis is on the enrichment experience of a liberal arts education. The student preparing to teach completes his major in another Department of the College. He may declare a minor in Education.

### THE WASHINGTON SEMESTER

In cooperation with The American University and an allied group of colleges and universities, this College offers four high-ranking juniors the opportunity to study during the spring semester at The American University, Washington, D. C. These students should preferably be majors in Economics, History, Political Science, or Sociology and should have taken Political Science 11-12. Application must be made in October to the coordinator of the Washington Semester program.

### ARMY ROTC PROGRAM

In 1952 the Department of the Army approved the establishment of a General Military Science unit of the Army Reserve Officers' Training Corps at DICKINSON COLLEGE. Commissioned and noncommissioned instructors were assigned and the Corps was organized. The unit today trains approximately one-third of all physically qualified incoming male students of the College in military fundamentals, citizenship, and leadership. Participation in the ROTC is strongly encouraged by the college authorities in the belief that the privilege of American citizenship carries with it an obligation to share in the preservation of the Nation. Graduates who have completed their ROTC requirements are commissioned 2nd

Lieutenants in either the Reserves or, if they are qualified and request it, in the Regular Army.

Participation in the ROTC at Dickinson is voluntary. Once accepted into the program, however, students are normally required to complete the two-year Basic Course (Freshman and Sophomore); and if they apply to continue and are accepted into the Advanced Course, they are required to complete the two upper-division years (Junior and Senior) leading to a commission. For information concerning subjects taught, refer to "Military Science" under Courses of Instruction, page 65 of this Bulletin.

Students accepted in the Corps are, upon signing a draft-deferment agreement, deferred from active military service under the provisions of the Selective Service Act of 1948 for the duration of their enrollment in the ROTC program.

## SUMMER SCHOOL

The College offers a summer program consisting of two terms. A student may obtain college credits applicable to his degree requirements at DICKINSON COLLEGE or acceptable for transfer credit at other academic institutions. In addition to the traditional academic subjects, the College provides in its summer programs certain specialized offerings of distinctive character as set forth in the separate summer bulletin. Copies of this bulletin may be obtained from the Director of Summer School.

## STUDY ABROAD

Students desiring to take a year's work abroad may be granted credit for this work provided the Dean of the College approves it *in advance* and the student presents a satisfactory certificate of accomplishment. This plan is available only to the student who enters the College not later than the beginning of his Sophomore year.

## LECTURESHIPS

The following lectureships are endowed or otherwise provided for:

**The James Henry Morgan Lectures** This lectureship "in the Classics and in College Teaching" is endowed by funds set aside in 1936 by the Board of Trustees in grateful appreciation of the distinguished services of the late James Henry Morgan of the Class of 1878: Professor of Greek, 1884-1914; Dean, 1903-14; President, 1914-28, 1931-32, 1933-34.

**The Boyd Lee Spahr Lectures in Americana** This lectureship was established in 1947 "in recognition of the importance of DICKINSON COLLEGE and its graduates in the large history of American Culture," and was named in honor of Boyd Lee Spahr, A.M., LL.D., D.C.L., of the Class of 1900, in grateful appreciation of his continuous interest in the DICKINSON COLLEGE Library and of his numerous contributions to historical collections.

**The Glover Memorial Lectures** This lectureship "in Science" was established in 1958 in memory of John Glover of New Castle on Tyne, England, the inventor of the "Glover Tower," and in memory of his son and grandson, Henry and Lester Glover, by the late Dr. John D. Yeagley and by Mrs. Yeagley of York, Pennsylvania.



# Curriculum

THE College offers two parallel courses in the Liberal Arts and Sciences leading to the Degrees of Bachelor of Arts and Bachelor of Science.

## A. REQUIREMENTS FOR GRADUATION

One hundred and twenty-four semester hours of academic work satisfactorily completed; an average of at least 1.75 in all courses taken at DICKINSON COLLEGE.

Completion of the required courses and satisfaction of the requirements for both distribution and field of concentration.

Seven semesters of chapel attendance.

Four semesters of Physical Education. Beginning with the Class of 1965 (those students who entered in September 1961) this requirement must be met by the end of the Junior year. It may be satisfied by the completion of two years of Military Science.

A minimum of 60 semester hours of course work in residence, including at least 24 of the 30 hours immediately preceding graduation. (Work completed under such cooperative programs of study as the College-Law School Program, the binary engineering program, and the Washington Semester shall be construed as work in residence.)

The Institutional Testing Program of the Graduate Record Examinations.

## B. REQUIRED COURSES

English 1-2 or English 2a.

For the Degree of Bachelor of Arts, Social Science 11-12. The Dean of the College in consultation with the Adviser may set this requirement aside in the cases of particular students who provide evidence acceptable to the Dean that they have had educational experiences in one or more of the social sciences substantially equivalent to that offered in Social Science 11-12. When any student is relieved of this requirement the Dean of the College shall notify the student of the fact in writing and send a copy of the notification to the Registrar and to the student's Adviser.

For the Degree of Bachelor of Science, Mathematics 1, 2, or Mathematics 5, 6, or Mathematics 11, 12.

### Language Requirements:

A. A candidate for a degree is required to complete work in a foreign language, classical or modern, through the intermediate level. A degree candidate whose native tongue is not English may be relieved of this requirement by action of the Foreign Students Committee and the Dean of the College. In such cases the Dean of the College shall notify the student of the fact in writing and send a copy of the notification to the Registrar and to the student's Adviser.

B. Any student entering a course in a foreign language which he has studied for two or more years in a secondary school must take the appropriate College Entrance Examination Board Achievement Test. The student will be placed in the appropriate college course on the basis of the score he achieves on this examination. See page 19 for CEEB Achievement Tests required of entering students.

## C. REQUIREMENTS FOR DISTRIBUTION

Candidates for the Degree of Bachelor of Arts or Bachelor of Science must satisfy the requirements for distribution (in courses numbered above 10) as follows:

Group A—Two semester courses in literature totaling not less than five credit hours in the following subject areas: English, French, German, Greek, Latin, Russian, or Spanish.

Group B—Three semester courses totaling not less than seven credit hours in the following subject areas: Economics, History, Political Science, Sociology, Social Science.

Group C—Two semester courses totaling not less than five credit hours: one course in Philosophy or Religion, one course in Education or Psychology.

Group D—One semester course totaling not less than two credit hours in the following subject areas: Dramatic Arts, Fine Arts, Music, Speech.

Group E—One year in a laboratory science: Biology 11, 12 or 23, 24; Chemistry 11, 12; Geology 11, 12; Physics 11, 12; or Physical Science 13, 14.

## D. REQUIREMENTS FOR FIELDS OF CONCENTRATION

The fields of concentration consist of:

(a) A required major consisting of 30-33 credit hours of academic work in the major field as specified by the chairman of the department concerned. No more than six hours of work with a grade of D may be applied toward this requirement.

(b) An optional minor consisting of 18-20 credit hours of academic work in another field as specified by the chairman of the department in which that field falls. If a student successfully completes the requirement for one or more minors this fact will be noted upon his

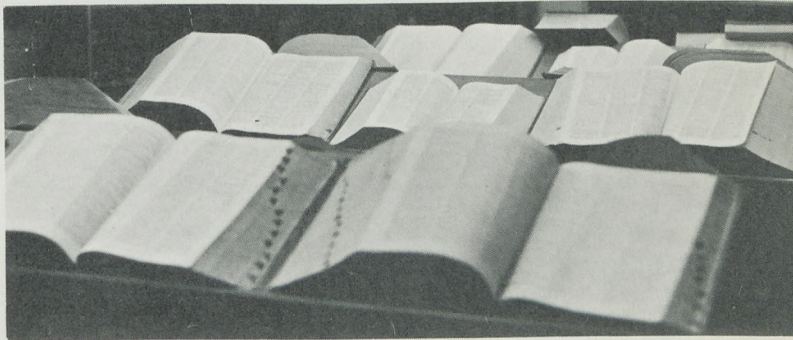


permanent record and will appear on any transcript that he may request.

The major field of concentration must be chosen prior to the end of the student's Sophomore year.

Acceptance of the student as a major is determined by the chairman of the department concerned, who then becomes the accepted student's Adviser.

A student who is not accepted for a major field of concentration at the end of his Sophomore year will be granted an additional semester



in which to qualify. If at the end of this additional semester he has still not been accepted, he will be required to withdraw from College without the privilege of readmission.

Only courses numbered above 10 will be accepted in satisfaction of the requirements of a field of concentration. A course may not be counted for both the major and the minor, nor may any part of the work taken in the student's major department be counted towards the fulfillment of the minor except in those instances in which a department offers two or more related but distinct areas of study.

Candidates for the Degree of Bachelor of Science are required to select a major in Biology, Chemistry, Geology, Mathematics, or Physics,\* and complete 12 additional semester hours of work in courses numbered above 10 in one or more of the other four science departments.

## E. SCHEDULE

### FRESHMAN AND SOPHOMORE YEARS:

- a. The normal academic load for freshmen and sophomores is 30-36 semester hours.

\*Candidates for the Degree of Bachelor of Arts may also major in these fields.

- b. The courses taken during the Freshman and Sophomore years are to be so selected that at the end of his Sophomore year a student will have completed all of the required courses and a reasonable number of the requirements for distribution. In addition, the courses elected should be preparatory to the student's expected fields of concentration.
- c. The courses open to freshmen as electives are listed below (see the detailed course descriptions for a brief discussion of course contents and for information concerning additional courses open to sophomores):

## ELECTIVES OPEN TO FRESHMEN

Biology	11, 12
Chemistry	11, 12, 29, 30
Dramatic Arts	11, 12, 21, and (with permission of the instructor) 32
Education	(with permission of the instructor) 21
English	(for students who have completed 2a) 11-12, 15, 18, 35
Fine Arts	15, 16
Geology	11, 12
History	11, 12, and (for students who have completed 11) 21, 22, 23, 24, 25
Mathematics	1, 2, 5, 6, 11, 12, and (with permission of the instructor) 13, 14
Military Science	1-2
Music	11, 12
Philosophy	11, and (for students who have completed 11) 32
Physical Science	(with permission of the Dean of Admissions) 13, 14
Physics	11-12
Psychology	11
Public Speaking	23, 24
Religion	15, 16
Social Science	11-12 (required of candidates for the Degree of Bachelor of Arts)
Sociology	60, and (with permission of the instructor) 32

## JUNIOR AND SENIOR YEARS:

- a. The normal academic load for juniors and seniors is 32-34 semester hours.
- b. Students must register in their Junior year for any of the required courses which they have not completed satisfactorily.
- c. In addition, courses must be elected to meet the requirements for distribution and fields of concentration.
- d. The remainder of the student's schedule consists of free electives as necessary to make up the total academic load of 124 semester hours.

## AUDITING:

Any student in good academic standing and who is registered for 16 or more hours during a semester may, with the approval of his Adviser and of the instructor involved, register to audit up to 6 additional hours. A student who is so auditing may after the end of six class weeks and prior to the beginning of the fourth class week before



examinations, with the written approval of both his instructor and Adviser, convert his audit registration to regular registration for credit. Students who are registered for less than 16 hours, may with the approval of the Dean of the College and of the instructor involved, audit courses but do not have the privilege of converting to regular registration for credit.

## F. INDEPENDENT STUDIES, DEPARTMENT HONORS

In each major field of concentration there is provided an Independent Studies Program intended to give the student an opportunity for a self-directed experience, an introduction to research, and practice in reporting the results of his investigation. Programs in an area which embraces more than one department may be arranged by the Dean of the College in consultation with the chairmen of the departments concerned.

The Independent Studies Program shall be open to those seniors whose work in the department or field of concentration has averaged at least 3.25 *and* whose cumulative average for all work at the College is at least 2.50 at the middle or end of the Junior year.

An essential element of the work is a written report giving the results of the student's investigations, due one month prior to the student's graduation.

High quality is expected both in the independent study and in the report. Work of distinction, as determined by the department, shall receive a grade of A and the student shall be graduated "with honors" in his field of concentration or, in the case of interdepartmental honors, "with honors" in interdepartmental studies with the specific fields named. Record of this distinction will appear on the diploma and on all manuscripts.

If a student's work fails to meet the standards for graduation with honors, he shall receive a letter grade of B or below consistent with the quality of his work.

Each department will determine whether the six hours credit for the course of Independent Studies shall count toward satisfaction of requirements for the major.

## G. RESPONSIBILITY OF STUDENTS

Responsibility rests with the student for the election of such courses as will satisfy the requirements of the College for graduation.

## H. SELECTED ACADEMIC REGULATIONS\*

### CHANGES IN REGULATIONS:

The College reserves the right to change its regulations, courses of study, and schedule of fees, without previous notice to the student.

**\*More detailed regulations are available in a separate pamphlet.**

## CREDIT FOR COURSE WORK:

Credit for courses is based on the assumption that two hours of study accompany each period of recitation or lecture.

## CREDIT FOR WORK AT OTHER COLLEGES:

- a. The College may grant credit for work completed at other accredited colleges on previous arrangement with the chairman of the appropriate department, the Adviser, and the Dean of the College. To receive credit the work must be at least C or its equivalent quality credit value. This work will count as hours credit toward graduation but the grade will not be used in computing the average for graduation.
- b. The College will accept no more than 12 credits for any one summer period and no more than 18 credits for summer study at other colleges.

## REGULATIONS GOVERNING GRADES:

Grades shall be reported as:

A	Excellent	F	Failing
B	Above Average	S	Satisfactory
C	Average	U	Unsatisfactory
D	Below Average	I	Incomplete

## COMPUTATION OF AVERAGES:

In the computation of averages the following scale of Quality Credit Points will apply:

<i>Grade</i>	<i>Points</i>
A	4
B	4
C	2
D	1
F	0

A student's average shall be computed on the basis of all academic work which he has taken at DICKINSON COLLEGE during any specific period.

The average shall be computed by multiplying the earned quality credit points by their respective semester hours, and dividing the total of these products by the sum of the semester hours of all academic work taken, this result to be carried to two decimal places.

## MINIMUM ACADEMIC STANDARDS (Effective July 1, 1964):

A regular student is required to meet the following minimum standards of academic quality during his course:

Freshman: An average for the year of 1.50.

Upperclassman: A cumulative average of 1.75 at the end of each semester.

Senior (to be graduated): An average of 1.75 in all courses taken at DICKINSON COLLEGE



A student who fails to meet the minimum standard for his class shall be required to withdraw unless the Committee on Academic Standards takes other action. He may apply for readmission after attending an accredited college elsewhere for one regular semester (not a summer session) and after meeting the following minimum specifications: completion of a program consisting of at least 15 hours in courses approved in advance by the Dean of the College and the attainment of an average of at least 2.25, with no grade lower than "C." Military service or satisfactory employment may be substituted for such scholastic experience. If after reinstatement the student fails to meet the minimum standard set for him by the Academic Standards Committee he will be required to withdraw and will be barred from readmission.

The Freshman, Sophomore, and Junior years are interpreted as the first, second, and third College Years of attendance as a regular student. The College Year extends from the opening of College in the fall to Commencement.

In the case of a student entering Dickinson with advanced standing because of work done at other institutions, the Committee on Admissions will determine his status as to class or year of attendance. In all other cases involving such irregularities as work done outside the Dickinson College Year, the Dean of the College will determine the student's class or year of attendance.

The Senior year is normally the fourth year of college attendance, but it may occur earlier or later. Specifically, a student meeting the quality standards is advanced to the Senior year at the end of the semester in which his total credit hours have reached 90. If this total has not been reached at the end of the second semester of his Junior year, he will be allowed one additional semester as a junior. If he cannot enter the Senior year after this additional Junior semester, he will be required to withdraw.

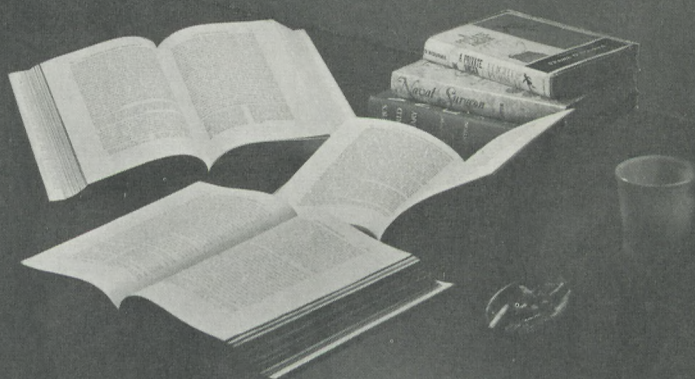
A student is expected to be graduated at the end of his Senior year. If he has not satisfied the requirements for graduation at the end of the second semester of his Senior year, he will be allowed one additional semester as a senior. If he cannot be graduated at the end of this additional Senior semester, his status will be considered by the Faculty.

#### HONORS UPON GRADUATION:

A student who in his total program attains an average of at least 3.75 shall be awarded his degree *summa cum laude*.

A student who in his total program attains an average of 3.50 but less than 3.75 shall be awarded his degree *magna cum laude*.

A student who in his total program attains an average of at least 3.25 but less than 3.50 shall be awarded his degree *cum laude*.





# Courses of Instruction

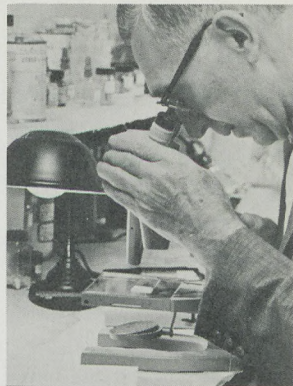
FOR all courses, except where otherwise indicated, the number of hours of academic credit per semester equals the number of hours of classroom work per week.

The classification of courses is as follows:

1. Normally odd number courses will be given in the fall semester and even number courses in the spring semester. Exceptions to this general practice will be noted in the printed course schedule.
2. When two course numbers, followed by a single description, are separated by a comma, either course may be taken without the other, though the two are normally taken together as a year-course.
3. When two course numbers, followed by a single description, are separated by a comma and preceded by an \*, the first course may be taken without the second, though the two are normally taken together as a year-course. The first course, however, is a prerequisite for the second.
4. When two course numbers, followed by a single description, are separated by a hyphen, the work of the two semesters constitutes an integral, indivisible year-course in which credit will not be given for the work of a single semester.

The order in which courses may be elected is determined by the prerequisites stated under the course descriptions. Courses designated by words such as "open to Sophomores and above," "open to Juniors and Seniors," or "open to Seniors only," may not be taken earlier than the year indicated. An exception to this rule may be made by the chairman of the appropriate department for students of high scholastic ability or advanced standing.

# BIOLOGY



*Professor Herber*

*Associate Professors D. McDonald and Jeffries*

*Assistant Professors B. McDonald and Biebel*

The Department of Biology seeks to provide the liberal arts student with a broad view of the principles and functions of animal and plant life. The beginning course can be a terminal course but is required of all students intending to major or minor in biology.

Elective courses, more specialized, are designed to introduce major concepts and experimental methods. The aim in these courses is to provide suitable preparation for graduate school and for the professional schools of medicine, dentistry, and allied fields. A special effort is made to develop research interest in honors work, seminar, and individual laboratory research. It is strongly recommended that those who plan to go to graduate school take Organic Chemistry, Physics, and Calculus.



**\*11, 12. GENERAL BIOLOGY** Biological principles with special emphasis on the physiology of animals and plants. Recent experiments in physiology, embryology, bacteriology, and genetics are discussed. Three hours classroom and three hours laboratory per week. **4 or 8 credit hours.**

**23. INVERTEBRATE ZOOLOGY** Principles of structure, classification, evolution, ecology, physiology, and the development of invertebrates. Two hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11, 12.* **4 credit hours.**

**24. VERTEBRATE ZOOLOGY** Examination of vertebrate evolution, development, structure, and physiology by the comparative method. Two hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11.* **4 credit hours.**

**32. MAMMALIAN ANATOMY** Detailed examination of the gross structure and functions of the mammalian body. Emphasis on bone, muscle, nerve, and circulation. Dissection of the cat. One hour classroom and four hours laboratory per week. *Open to Juniors and Seniors. Prerequisite: 11. Recommended: 24.* **3 credit hours.**

**34. MICROBIOLOGY** The taxonomy, physiology, and heredity of bacteria, molds, and viruses. Laboratory projects are designed to provide technical competence in handling microorganisms. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11.* **3 credit hours.**

**41. HISTOLOGY** Microscopic anatomy of mammalian organs and tissues with an introduction to the techniques of fixing, sectioning, and staining. One hour classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11-12. Recommended: 24 or 32.* **3 credit hours.**

**44. EMBRYOLOGY** The experimental approach to the study of animal development. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11.* **3 credit hours.**

**45. PHYSIOLOGY** The physical and chemical basis of biological activities. Laboratory includes experiments in biochemistry, enzymology, and the operation of stimulation and recording apparatus. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11. Chemistry 11-12 is strongly recommended.* **3 credit hours.**

**51. GENETICS** Principles of heredity and their impact on population dynamics, evolution, and human society. Laboratory projects are designed to acquaint students with modern techniques for conducting genetic experiments with living organisms. Two hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11.* **4 credit hours.**

**53. PARASITOLOGY** A study of parasites in relation to disease; their life histories and geographical distribution. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11-12. Recommended: 23.* **3 credit hours.**

**54. FIELD STUDY OF PLANTS** A systematic survey of the plant kingdom through the collection and study of living plants. Frequent field trips are conducted as weather permits. An herbarium of named plants is prepared. Emphasis will be placed on the diverse features of plants which permit effective study of fundamental biological problems. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11, 12.* **3 credit hours.**

**55. MORPHOLOGY AND PHYSIOLOGY OF HIGHER PLANTS** An integrated study of structure and function in higher plants. Emphasis is placed on the experimental approach to photosynthesis, respiration, translocation, and other plant activities. Anatomical features are studied as a basis for plant physiology. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11, 12.* **3 credit hours.**

**60. RADIATION BIOLOGY** Physical aspects of radiation biology, including protection and detection of nuclear radiations, and radiation characteristics and ionizing power as clues to biological effects. Introduction of problems in radiation health protection such as health dosage units, hazards, and safety precautions. Cytological effects, underlying chemical changes, and principles in the use of tracers. Also named Physics and Astronomy 60. *Prerequisite: 11-12; Physics 11-12, and permission of the instructor.* **4 credit hours.**

**81, 82. RESEARCH PROBLEMS** An opportunity is presented for the investigation of problems which the different department members feel can be pursued here. A minimum of four hours of laboratory per week. *Open only to Juniors and Seniors majoring in Biology.* **2 or 4 credit hours.**

**92. SEMINAR** Reading, conference, writing, and oral presentation of reports. *Open only to Juniors and Seniors majoring in Biology.* **2 credit hours.**

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index.* **6 credit hours.**

**Major:** 30 semester hours, including Biology 11-12. In addition, Chemistry 11-12 is required. Chemistry 51-52 may be substituted for 8 hours in Biology.

**Minor:** 18 semester hours, including Biology 11-12.





# CHEMISTRY

*Professors Rogers and Gleim*

*Visiting Professor Crist*

*Associate Professor Naff*

*Assistant Professor Roper*

*Adjunct Assistant Professors Oldenburg, Allen, and Henschen*

The work in General Chemistry is planned to meet the needs of the student for whom this is the terminal course in chemistry as well as the needs of the student who plans to take additional courses in the department. The advanced courses are planned primarily for students who are preparing for medicine, teaching, industry, and graduate work.

DICKINSON COLLEGE is included in the list of institutions approved for undergraduate training in chemistry by the American Chemical Society. The ACS minimum requirements in chemistry include four basic year-courses in general chemistry, analytical chemistry, physical chemistry, and organic chemistry, together with at least one year of advanced work. Any deficiency in any of the basic courses is to be compensated for by a corresponding increase in a more advanced course. The additional requirements are courses in physics, mathematics through integral calculus, a reading knowledge of German, a year of English composition, and the equivalent of a full semester devoted to the study of the humanities.

**\*11, 12. GENERAL CHEMISTRY** In the first semester, study of chemical principles with emphasis on atomic structure, the periodic system, and the chemical bond. In the second semester, oxidation-reduction, solutions, and chemical equilibrium are introduced. The laboratory work consists of qualitative analysis and some elementary quantitative analysis. Three hours classroom and four hours laboratory per week. **4 or 8 credit hours.**

**21. QUANTITATIVE ANALYSIS** The principles of stoichiometry, applications of chemical equilibrium to analytical problems, pH, solubility equilibria, and methods of volumetric and gravimetric analysis. Two hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 12, with a grade of at least C.* **4 credit hours.**

**22. ANALYTICAL CHEMISTRY** Methods of analytical separations such as solvent extraction, ion exchange, radio-chemical and chromatographic. Colorimetry, spectrophotometry and other modern instrumental methods are emphasized. Two hours classroom and four hours laboratory per week. *Open to Juniors and Seniors. Prerequisite: 21; Physics 11-12 or concurrent registration in Physics 12; Chemistry 35 and concurrent registration in 36 or concurrent registration in 34.* **4 credit hours.**

**29, 30. RESEARCH METHODS** Literature searching, research planning and execution, interpretation, precision and accuracy, techniques, legal considerations, report writing. **1 or 2 credit hours.**

**32. ADVANCED INORGANIC CHEMISTRY** The course emphasizes modern theoretical inorganic chemistry. The development of atomic theory; periodic classification of the elements; chemical bonding and structure; coordination compounds; acid-base relationships and nonaqueous solvents. *Open to Juniors and Seniors. Prerequisite: 22.* **2 credit hours.**

**34. ELEMENTARY PHYSICAL CHEMISTRY** Lecture course primarily for pre-medical students. A study of the states of matter, colligative properties of solutions, thermodynamic principles, acid-base and oxidation-reduction equilibria, chemical kinetics, and surface effects. *Open to Sophomores and above. Prerequisite: 12; Physics 12.* **2 credit hours.**

**\*35, 36. PHYSICAL CHEMISTRY** The course is designed to give a thorough foundation in the principles of physical chemistry. The fundamentals of chemical thermodynamics, kinetics, and quantum mechanics are introduced as unifying basis for discussion of chemical and phase equilibria, electrochemistry, reaction mechanisms, spectroscopy and atomic and molecular structure. Laboratory work and problem assignments are important parts of the course. Three hours classroom and three hours laboratory per week. *Open to Sophomores and above. Not open to students with credit for 34 or 81-82. Prerequisite: 12; Physics 11-12 (preferably during the Freshman year or concurrently); Mathematics 11, 12 (preferably during the Freshman year or concurrently).* **4 or 8 credit hours.**

**\*51, 52. ORGANIC CHEMISTRY** Systematic study of the compounds of carbon with emphasis on the chemistry of carbohydrates, proteins, and lipids. Laboratory work involves the preparation and analysis of organic compounds. Three hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 12 or the equivalent and permission of the instructor. Physics 12 is strongly recommended.* **4 or 8 credit hours.**

**53. ADVANCED ORGANIC LABORATORY METHODS** Preparations of an advanced nature and qualitative organic analysis. Extensive use is made of the chemical literature. Two hours classroom and four hours of laboratory work per week. *Open to Juniors and Seniors. Prerequisite: 52.* **3 credit hours.**

**85. THEORETICAL ORGANIC CHEMISTRY** Physical basis and methods by which organic reaction mechanisms are formulated. Designed to develop in the student the ability to use the current literature in organic chemistry. Three hours classroom per week. *Open to Seniors. Prerequisite: 36, 52.* **3 credit hours.**

### **83-84. SPECIAL PROBLEMS and**

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** Two lectures per week on advanced laboratory techniques and instrumentation for the first eight weeks and six hours of laboratory per week for two semesters with research emphasized. Topics are chosen for investigation. Credit for 101-102 to be given if a grade of A is received for both semesters and the student meets the overall college requirements for honors work. *Open to Seniors only. Prerequisite: Permission of the Chairman of the Department.* **6 credit hours.**

**Major:** 33 semester hours, including 11, 12, 21, 35, 36, 51, and 52. Any student desiring departmental recommendation for graduate work (other than medical) must satisfactorily complete 11, 12, 21, 22, 32, 35, 36, 51, 52, 53, 85, and 83-84 or 101-102.

**Minor:** 18 semester hours, including 11, 12.



# CLASSICAL LANGUAGES AND LITERATURE

*Associate Professor Lockhart*  
*Assistant Professor Nodder*

The goal of the Department of Classical Languages and Literature is to enable the student to read chosen portions of Greek and Latin Literature and to acquaint him with the cultural aspects of the Greek and Roman civilizations and their influence on the civilizations of the Western World.

## GREEK

**1-2. FIRST YEAR GREEK** Emphasis on the fundamentals of Greek grammar and the study of vocabulary. *Given in alternate years. To be given 1965-66. 6 credit hours.*

**11-12. SECOND YEAR GREEK** Completion of the study of grammar. Readings in Attic prose and, in the second semester, the New Testament. *Given in alternate years. To be given 1964-65. Prerequisite: 1-2 or the equivalent. 6 credit hours.*

**21, 22. SURVEY OF GREEK LITERATURE** Readings of representative Greek authors in both prose and poetry. Supplementary readings from Greek literature in English translation. *Given in alternate years. To be given 1964-65. Prerequisite: 11-12 with a grade of at least C. 3 or 6 credit hours.*

**73, 74. JUNIOR SEMINAR** Readings in the Greek tragedians, orators, historians, or Homer. *Given in alternate years. To be given 1964-65. Prerequisites: 21, 22 or permission of the instructor. 2 to 6 credit hours.*

**83, 84. SENIOR SEMINAR** A reading, research, and conference course on selected areas of Greek Literature. *Given in alternate years. To be given 1965-66. Prerequisite: 21, 22 or permission of the instructor. 2 to 6 credit hours.*

**Minor:** 18 semester hours, including Greek 11-12, 21, 22, and History 21, 22.

## LATIN

**1-2. FIRST YEAR LATIN** Drill in the fundamentals of Latin grammar and vocabulary. Selected prose from the Roman Republic are read in the second term. **6 credit hours.**

**11-12. SECOND YEAR LATIN** Review of Latin syntax. Readings from Cicero in the first term, Vergil's *Aeneid* in the second term. **6 credit hours.**

**21. ROMAN HISTORIANS** Readings from Roman historians, with particular emphasis on Livy. *Prerequisite: 11-12 or at least three units of high school Latin.* **3 credit hours.**

**24. LATIN POETRY** Horace, Odes and Epodes. Catullus. The Elegists. Ovid. *Not open to students with credit for 31. Prerequisite: 11-12 or at least three units of high school Latin.* **3 credit hours.**

**32. CICERO** Essays and letters, with stress on intellectual life of the age of Cicero. *Given every third year. To be given 1966-67. Prerequisites: 21 or 24.* **3 credit hours.**

**37. VERGIL** *Aeneid* VI-XII, studied in the light of ancient poetical theory and the epic tradition. *Not open to students with credit for 22. Given every third year. To be given 1966-67. Prerequisite: 21 or 24.* **3 credit hours.**

**47. CAESAR** The *Bellum Civile*, with special stress on Caesar as prose stylist. The nature and purpose of the Commentaries as a literary type. *Given every third year. To be given 1965-66. Prerequisite: 21 or 24.* **3 credit hours.**

**48. LUCRETIVS** The philosophy and poetry of the *De Rerum Natura*. *Given every third year. To be given 1965-66. Prerequisite: 21 or 24.* **3 credit hours.**

**57. JUVENAL** The nature of "rhetorical" poetry. Careful reading of the Satires. *Given every third year. To be given 1964-65. Prerequisite: 21 or 24.* **3 credit hours.**

**58. TACITUS** Readings in the *Annals* and the shorter works. Tacitus as historian and historical source. *Given every third year. To be given 1964-65. Prerequisite: 21 or 24.* **3 credit hours.**

**73, 74. THE LATIN LANGUAGE** First Semester: Introduction to historical grammar and syntax. Second Semester: The syntax of Classical Latin. *Open to Juniors and Seniors. Given in alternate years. To be given 1964-65. Prerequisite: permission of the instructor; 21 or 24.* **3 or 6 credit hours.**

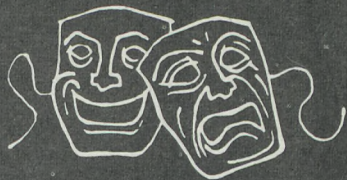
**81, 82. SEMINAR** Readings and conferences in a special topic of Latin literature. Introduction to research in classical studies. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: Permission of the instructor; 21 or 24.* **3 to 6 credit hours.**

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index.* **6 credit hours.**

**Major:** 11-12, 21, 24 and 18 additional hours in courses numbered above 30, or the equivalent of these courses. History 23, 24 may be counted toward this requirement.

**Minor:** 11-12, 21, 24 and 6 additional hours in courses numbered above 30 or the equivalent of these courses. History 23, 24 may be counted toward this requirement.





## DRAMATIC ARTS

*Assistant Professor Brubaker*

The goal is an appreciation of the theatre arts through creative exercise and a study of drama theories, practices, and history. In addition to the courses outlined below, the College sponsors an extra-curricular program which gives all students an opportunity for practical experience in the dramatic arts.

**11. ACTING** A laboratory course in the principles and theories of acting combined with practical exercises. One hour classroom and four hours laboratory per week. **3 credit hours.**

**12. DIRECTING** A laboratory course in directing. One hour classroom and four hours laboratory per week. *Prerequisite: 11.* **3 credit hours.**

**21. STAGECRAFT** A laboratory course in technical production, with emphasis on class and individual projects. Two hours classroom and two hours laboratory per week. *Prerequisite: Permission of the instructor.* **3 credit hours.**

**32. HISTORY OF THE THEATRE** A study of the forms of theatre from primitive ritual to modern times. *Open to Sophomores and above. Also open to Freshmen with permission of the instructor. Previous courses in either History or dramatic literature or both, are strongly recommended.* **3 credit hours.**

# ECONOMICS

*Professors Newman and Prinz\**

*Associate Professor Houston*

*Assistant Professor King*

The Department of Economics offers courses designed to give the student a knowledge of the essential facts and theories basic to the free enterprise and other economic systems of the world today. A student majoring in the field may obtain a background for business and the prerequisites for graduate study in business, economics and allied fields. Other students will find the various courses complementary to specialized programs in many areas, including political science, sociology and history.

**12. ECONOMICS OF PERSONAL FINANCE** A study of the consumer and his use of income. An analysis of the major factors in personal finance such as borrowing, investing, paying taxes, and spending for consumption. *Open to Sophomores and above. Not open to students who have credit for 21-22. Given occasionally. 3 credit hours.*

**15. ECONOMIC GEOGRAPHY** The main geographic regions of the world compared with respect to their climate, natural resources, and main lines of agricultural and industrial production, as a basis for understanding world trade and international economic policies. *Open to Sophomores and above. Given occasionally. 3 credit hours.*

**\*21, 22. PRINCIPLES OF ECONOMICS** Designed to enable the student to appraise contemporary economic problems. Emphasis is placed upon the structure of modern markets: production and pricing; the development of business organizations and related institutions; the banking system; national income, its determination and its distribution into wages, rents, interest, and profits; public finance; international trade; and comparative economic systems. *Open to Sophomores and above. 3 or 6 credit hours.*

**\*29, 30. INTRODUCTORY ACCOUNTING** A course designed to give the student a general knowledge of accounting and of its use as a tool of management. Emphasis is placed upon the managerial approach of economic and financial analysis and interpretation after basic accounting techniques have been mastered. Fundamental problems of business finance, income tax, and automatic data-processing systems are considered in the second semester. *Open to Sophomores and above. 3 or 6 credit hours.*

**\*Refresher-Year Leave 1963-64.**



**35. BUSINESS ORGANIZATION AND FINANCE** The forms of business enterprise compared in their legal status and economic importance; dominance of the corporate form of private enterprise; problems of administration and finance; investors' rights and state control. *Open to Juniors and Seniors. Prerequisite: 21. 3 credit hours.*

**44. PUBLIC FINANCE** A survey of the field of government finance—national, state, and local. Trends and purposes in government income and expenditures; analysis of deficit financing and taxation theory and practice; the relation of these aspects of finance to credit and price structures, business administration, and the business cycle, as a factor in determining public policy. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22. 3 credit hours.*

**47. MONEY AND BANKING** A study of the role of money and credit in the United States economy. This includes an examination of the functions of money, the commercial banking system, the Federal Reserve System, and miscellaneous domestic and international financial institutions. Various theories of money will be studied. The monetary and financial policies and practices of the Federal Reserve System and the United States Government will be analyzed and appraised. *Open to Juniors and Seniors. Prerequisite: 21-22. 3 credit hours.*

**48. FOREIGN TRADE** A study of the principles and practices of international trade: tariff problems and policies, international trade agreements, international monetary systems and the balance of payments, exchange depreciation and exchange control, state trading, the International Monetary Fund, the European Payments Union, and the Common Market. *Open to Juniors and Seniors. Prerequisite: 21-22. 3 credit hours.*

**49. INTERNATIONAL ECONOMICS** The problems of international investment. The needs of underdeveloped countries. Foreign economic policies of the United States and other countries. The International Bank for Reconstruction and Development, the Export-Import Bank, and similar institutions. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 48 or permission of the instructor. 3 credit hours.*

**50. SOCIAL CONTROL OF BUSINESS** Analysis of the control of monopoly in American industry. Particular problems of defense, agriculture, and public utilities, as well as basing-point systems, patenting and licensing agreements, delivered pricing, et cetera, are considered. Over-all emphasis placed upon the interpretation and enforcement of the antitrust laws. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22. 3 credit hours.*

**53. THE ECONOMICS OF LABOR** A survey of the development and regulation of trade unions in the United States, with special reference to the institutional and theoretical background of collective bargaining wherein wages, hours, and other conditions of employment are determined. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22. 3 credit hours.*

**\*61, 62. INTERMEDIATE ACCOUNTING** A more advanced treatment of the material in Economics 29, 30 with increased emphasis on advanced accounting theory and techniques in conjunction with the managerial approach. Consideration of more advanced problems in business finance, income tax, and automatic data-processing systems is stressed, together with some discussion of CPA examination questions. *Open to Juniors and Seniors. Prerequisite: 29, 30. 3 or 6 credit hours.*

**71. ECONOMIC HISTORY OF THE UNITED STATES** The evolution of agriculture, industry, commerce, finance, and transportation from Colonial times to the present, viewed against the background of natural environments and changing social and governmental institutions. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22, or permission of the instructor. See History 79. 3 credit hours.*

**73. HISTORY OF ECONOMIC THOUGHT** A critical presentation of significant economic theories from the beginning to the present time, viewed as an expression of the individuality of the great thinkers and of their historical background. *Open to Juniors and Seniors. Prerequisite: 21-22. 3 credit hours.*

**75. BUSINESS CYCLES** A critical analysis of the history and causes of economic fluctuations; the main theories and the various measures designed to bring about greater economic stability, with emphasis on recent experience. *Open to Juniors and Seniors. Prerequisite: 21-22 and 47. 3 credit hours.*

**76. CONTEMPORARY ECONOMIC SYSTEMS** Capitalism, communism, fascism, and socialism compared as economic systems. Their ideology; their historical development in the principal countries; and their main present problems. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22. 3 credit hours.*

**78. ECONOMIC THEORY** A study of the major fields of modern economic theory, with emphasis on the tools of economic analysis at the macroeconomic and microeconomic levels. Deductive and inductive methods are compared and contrasted. The theories of consumer demand, the business firm and market structures, income determination and distribution, and growth are presented. Tools of empirical analysis such as statistical techniques, econometrics, input-output, and other national accounting techniques are discussed. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 21-22. 3 credit hours.*

**95. SEMINAR** Individual reading program and preparation of reports for class presentation and discussion. Each semester's work will center around a particular subject or area of economics. *Open to Seniors only. Prerequisite: Permission of the Chairman of the Department. 3 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 21, 22, 29, 47, 73, and fifteen hours from the following: 15, 30, 35, 44, 48, 49, 50, 53, 71, 75, 76, 78, 95, 101-102. In addition, beginning with students who entered in September 1959, Mathematics 1-2, or 5-6, or the equivalent, and Mathematics 13 or 23-24 will be required.

**Minor:** 18 semester hours, including 21-22. Economics 12 may not be counted toward a minor.

**Note:** Students who plan to make Economics their major field of study should take Economics 21-22 as early as possible, preferably in their Sophomore year, in order to avoid later election difficulties. They should elect Economics 29 not later than the Junior year. Students planning to do graduate work in Economics should elect Economics 78 and Mathematics 11-12, 23-24, and if possible 15-16.

## EDUCATION

See Psychology and Education.



# ENGLISH

*Professors Schiffman, Sloane, Horlacher, Bowden, and Warlow*

*Associate Professor Wishmeyer*

*Assistant Professors Hartshorn, Gillespie, J. Doebler, B. A. Doebler, and  
Clipper*

*Mr. Morrissey and Mrs. Young*

The language and literature of the Anglo-American tradition are studied historically, by types, and in comparison with other arts and literatures. English majors should therefore take courses in art, history, music, philosophy, religion, and in foreign languages and literatures, both classical and modern. They should acquaint themselves with the best that has been thought and said and done in the world.

English majors are afforded training in the basic disciplines of the field—history, criticism, and research. In various ways superior students are encouraged to do advanced, independent work.

**1-2. ENGLISH COMPOSITION** Principles of grammar and rhetoric necessary for clear, vigorous, written English. In the first semester, the student receives training in expository techniques, including research and report writing. In the second semester, the student is introduced to the critical appraisal of literature. **6 credit hours.**

*Required of all Freshmen. Either English 1-2 or 2a, or their equivalent in transfer credits, is a prerequisite to all other courses in the Department. (Exceptionally well-prepared students may be excused from English 1 with consent of the Chairman of the Department and the Dean of Admissions. In its place they are required to take English 2a.)*

**2a. ENGLISH COMPOSITION** Freshman course. Open only to Freshmen with advanced standing in English; these students normally elect English 11-12, 15, 18, or 35 in the second semester. Prerequisite: Permission of the Chairman of the Department and the Dean of Admissions. **3 credit hours.**

**11-12. A SURVEY OF ENGLISH LITERATURE** The growth of literary types and values against the background of history, from earliest times to the present. Intensive study of the major English poets, prose-writers, and dramatists, especially Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Swift, Pope, Johnson and Boswell, words-

worth, Keats, Browning, Arnold, Shaw, Yeats, and Eliot. *This course should be elected in the Sophomore year by all students contemplating further work in English. Open to Sophomores and above. Also open to Freshmen who have completed 2a. 6 credit hours.*

**15. THE ENGLISH NOVEL** The development of the English novel from the late sixteenth to the mid-nineteenth century, with emphasis on the major novelists from Defoe to Thackeray and Trollope. Collateral readings and reports. *Open to Sophomores and above. Also open to Freshmen who have completed 2a. 3 credit hours.*

**16. THE ENGLISH NOVEL** The development of the English novel from the mid-nineteenth to the early twentieth century, with emphasis on the major novelists from the Brontës to Conrad, Bennett, and Wells. Collateral readings and reports. *Open to Sophomores and above. 3 credit hours.*

**18. MODERN DRAMA** The contemporary theatre, with some attention to the influence of European writers since Ibsen upon modern playwriting and stagecraft. *Open to Sophomores and above. Also open to Freshmen who have completed 2a. 3 credit hours.*

**18a. MODERN DRAMA** *Intended primarily for Juniors and Seniors majoring in English. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. Credit is not given for both 18 and 18a. 3 credit hours.*

**25. ADVANCED COMPOSITION** The techniques of purposeful writing, with special attention to the development of ideas and their critical appraisal through exposition. *Recommended for students in the College-Law School program and for students preparing to teach. Open to Juniors and Seniors. Also open to Sophomores with permission of the instructor. 3 credit hours.*

**30. LITERARY SCHOLARSHIP AND CRITICISM** Methods of literary research, important critical views, and the effective means of their presentation. *Open only to, and required of, Juniors majoring in English. 3 credit hours.*

**31. CLASSICAL AND BIBLICAL INFLUENCES IN ENGLISH LITERATURE** Selected classical and Biblical literature with critical consideration of their use from the Middle Ages to the twentieth century. *Open to Juniors and Seniors. Prerequisite 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 credit hours.*

**32. ENGLISH DRAMA TO 1642** The development of English drama from the liturgical play to the closing of the theatres in 1642. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 credit hours.*

**35. HISTORY OF THE ENGLISH LANGUAGE** The origins and growth of the English language from the earliest times to the present; the sources of our vocabulary and the continuing processes of word creation and semantic change. *Open to Sophomores and above. Also open to Freshmen who have completed 2a. 3 credit hours.*

**36. STRUCTURE OF THE ENGLISH LANGUAGE** An intensive study of conventional grammar, with some attention to its historical development and a short introduction to the principles of structural linguistics. Recommended for language students and for those preparing to teach English. *Open to Juniors and Seniors. Also open to Sophomores with permission of the instructor. 3 credit hours.*

**37, 38. WORLD LITERATURE** Readings in English from a selected group of literary masters of particular significance to Western culture, notably Homer, the Greek dramatists, Virgil, Dante, Chaucer, Shakespeare, Molière, Racine, Voltaire, Goethe, Dos-



toievsky, and Ibsen. Lectures by the instructor and other members of the Faculty. *Open to Juniors and Seniors. 3 or 6 credit hours.*

**41-42. SHAKESPEARE** First semester: Early plays, comedies, and histories. Second semester: Problem comedies, tragedies, and romances. Offers a sampling of the principal critical approaches to Shakespeare, but primary emphasis is on the plays themselves. *Open to Juniors and Seniors. 6 credit hours.*

**44. CHAUCER** A study of Chaucer and his century, with emphasis on *The Canterbury Tales* and *Troilus and Criseyde*. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 credit hours.*

**45, 46. A SURVEY OF AMERICAN LITERATURE** Literary trends from Puritan times to the present, with emphasis on the major nineteenth and twentieth-century writers. First semester: Mather to Melville. Second semester: Whitman to Hemingway. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 or 6 credit hours.*

**47. SPENSER AND HIS AGE** A study of the non-dramatic poetry and prose of the Elizabethan period with emphasis on the works of Edmund Spenser. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 credit hours.*

**53-54. ENGLISH LITERATURE OF THE SEVENTEENTH CENTURY** First semester: A study of the important poets and prose-writers from the age of Donne and Jonson to the Restoration, with outside readings in the literature of the period. Second semester: A detailed study of the poetry and prose of John Milton. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 6 credit hours.*

**57, 58. ENGLISH LITERATURE OF THE EIGHTEENTH CENTURY** Representative English writers and tendencies of the neoclassical period. First semester: The Augustan period, with emphasis on Dryden, Swift, and Pope. Second semester: The age of Johnson and the beginnings of Romanticism. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 or 6 credit hours.*

**61, 62. ENGLISH LITERATURE OF THE NINETEENTH CENTURY** First semester: Major writers of the Romantic period, from Wordsworth to Keats. Second semester: Major writers of the Victorian period, from Tennyson to Housman and Hardy. *Open to Juniors and Seniors. Prerequisite: 11-12; but may be elected concurrently with 12 by Sophomores who have a grade of at least B in 11. 3 or 6 credit hours.*

**67. TWENTIETH CENTURY FICTION** A study of contemporary fiction based on a group of novels representative of English, American and Continental achievements and trends. *Open to Juniors and Seniors. Also open to Sophomores with permission of the instructor. It is recommended that this course be preceded by at least one semester's study of the English novel. 3 credit hours.*

**70. TWENTIETH CENTURY AMERICAN AND BRITISH POETRY** Important American and British poets (Yeats, Robinson, Frost, Pound, Eliot, Auden, and others) and poetic tendencies (symbolism, imagism, Georgianism, social consciousness, and the like). Readings for breadth in an anthology; readings for depth in separate volumes of one or two poets. *Open to Juniors and Seniors. Prerequisite: 11-12. 3 credit hours.*

**80. REPRESENTATIVE AMERICAN WRITERS** A seminar in writers selected on the basis of some common principle or trend represented in their writing or time. *Open only to Juniors and Seniors with consent of the instructor. Prerequisite: 11-12. 3 credit hours.*

**81, 82. CREATIVE WRITING** Directed practice in the techniques of short fiction, dramatic dialogue, and lyric poetry. *Open to Juniors and Seniors. Also open to Sophomores with a grade of at least B in 1-2 or 2a. 3 or 6 credit hours.*

**92. ADVANCED LITERARY CRITICISM** A seminar for the discussion of major literary critics, past and present, with emphasis upon developing fruitful approaches to selected works of fiction, poetry, and drama. *Open only to Seniors with consent of the instructor. Prerequisite: 30. 3 credit hours.*

**96. SENIOR SEMINAR** *Open only to Senior English Majors with consent of the instructor. Prerequisite: A cumulative average of 2.75 or an average in English courses of 2.75. 3 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major** (effective beginning with the Class of 1966): 30 semester hours in departmental course work, including 11-12, 30, 41-42, and one course from each of the following groups:

Group 1: 32, 44, 47, 53-54

Group 3: 45, 46, 80

Group 2: 57, 58, 61, 62

Group 4: 18a, 67, 70

Group 5: 31, 35, 36, 92, 96

In addition, students majoring in English are urged to enroll in History 43, 44, and in Fine Arts 15, 16. Students who hope to receive departmental honors must elect 101-102.

**Minor:** 18 semester hours in departmental course work, including 15 hours in literature courses. Minors must elect 11-12 and at least six hours from the following group: 41-42, 44, 45, 46, 53-54, 57, 58, 61, 62, and 70.





# FINE ARTS

*Associate Professor Gordon*

*Assistant Professor Pusey*

*Mr. Sabin and Mr. Tomko*

Courses in Fine Arts provide the student with objective methods of understanding the historical and aesthetic significance of the visual arts. Departmental offerings should be elected, wherever possible, in conjunction with related courses in history, music, philosophy, religion, and classical, foreign and English literatures. The major in Fine Arts can provide a cornerstone to a meaningful liberal arts education. Either the major or the minor offers a disciplined introduction to the formal, iconographic and critical methods of art history for those students considering graduate study and careers in college teaching, museum administration, or architecture.

**15, 16. HISTORY OF ART** A survey of the painting, sculpture, architecture, and other arts created in the world's major civilizations; relevant technical terms and objective methods of analysis are defined. In 15, examples are chosen from primitive, ancient, and oriental art, and from European art before the sixteenth century. In 16, art of the western tradition (beginning with the Renaissance) is considered. **3 or 6 credit hours.**

**\*17, 18. FUNDAMENTALS IN PAINTING AND DESIGN** A studio course, consisting of six hours of supervised practical work per week. Instruction is offered in materials, several media of drawing and painting, composition and design, color theory, and mural and other decorative painting. *Prerequisite: 15 or 16.* **3 or 6 credit hours.**

**19. SPECIAL PROBLEMS IN PAINTING AND DESIGN** A studio course extending the work of Fine Arts 17, 18, by further individual work with the instructor. *Open to Sophomores and above. Prerequisite: 17, 18.* **1 credit hour.**

**33. ANCIENT ART** The art and architecture of ancient Egypt, Mesopotamia, Greece, and Rome is considered, with major emphasis devoted to Greek art of the Archaic, Classic, and Hellenistic periods. *Prerequisite: 15 or 16.* **3 credit hours.**

**34. ORIENTAL ART** A survey of the oriental viewpoint in art. Examples are drawn from the cultures of southeast Asia, China, and Japan, with particular emphasis upon the Chinese painting tradition. *Prerequisite: 15 or 16, or permission of the instructor.* **3 credit hours.**

**35. MEDIEVAL ART** European art and architecture of the middle ages, from the decline of the Roman Empire to the fourteenth century. Particular emphasis is placed upon the art of the Gothic cathedral. *Prerequisite: 15 or 16.* **3 credit hours.**

**37. ITALIAN RENAISSANCE ART** Italian painting and sculpture of the fifteenth and sixteenth centuries, with some consideration of architecture. The works of Leonardo, Raphael, Titian, and Michelangelo are considered in some detail. *Open to Sophomores and above. Prerequisite: 15 or 16.* **3 credit hours.**

**38. BAROQUE ART** European painting and sculpture of the seventeenth century, with some consideration of earlier North European painting. Particular emphasis is devoted to the art of Velasquez, Poussin, Rubens, and Rembrandt. *Open to Sophomores and above. Prerequisite: 15 or 16.* **3 credit hours.**

**42. HISTORY OF ARCHITECTURE SINCE 1400** Nineteenth and twentieth century architectural innovations in space, structure, and design are considered in relation to earlier European tradition. *Open to Sophomores and above. Prerequisite: 15 or 16, or permission of the instructor.* **3 credit hours.**

**44. MODERN PAINTING** Painting of the nineteenth and twentieth centuries. In relation to the European background of the nineteenth century, the continuities and innovations of modern pictorial art are considered. Creative movements and styles are emphasized, from Impressionism to the present day. *Open to Sophomores and above. Prerequisite: 15 or 16.* **3 credit hours.**

**45. AMERICAN ART** The development of painting, sculpture, architecture, and some of the minor arts in the United States from the Colonial period to the twentieth century. *Open to Sophomores and above. Prerequisite: 15 or 16 or permission of the instructor.* **3 credit hours.**

**\*81, 82. ART HISTORY SEMINAR** Selected problems of meaning and design in the Fine Arts are studied in individual student projects and group discussion. In 81, problems of critical evaluation are introduced by means of assigned reading. In 82, projects will center each year on certain areas to be chosen by the instructor. In 1964-65, one area will be European art of the Renaissance-Baroque tradition. *Open to qualified Sophomores and above. Prerequisite: 15, 16 and permission of the instructor.* **3 or 6 credit hours.**

**Major:** 30 semester hours, including 15, 16, 81, and six additional courses numbered above 30. No grade in the department lower than C may be counted toward the major.

**Minor:** 18 semester hours, including 15, 16 and three additional courses numbered above 30.

**Note:** Majors will normally complete 15, 16 no later than the Sophomore year, and 81 no later than the Junior year. Minors considering a career or graduate work in Fine Arts are advised to elect 81. A knowledge of German or French is required for graduate work in Fine Arts.



# GEOLOGY

*Professor Difford*

*Assistant Professor Virgin*

The course offerings in the Department of Geology offer a comprehensive view of the principal areas of the science of geology, and experience in the fundamentals of geological investigation. This program is provided for students planning to proceed with graduate study or research in the field, or to enter directly into positions for which geological training is a requisite, as well as to stimulate understanding and enjoyment of the region in which the student lives.

**\*11, 12. PHYSICAL AND HISTORICAL GEOLOGY** First semester: Geological principles and external processes, including rock weathering and soils, river action and valley development, effects of glaciers, oceans, and volcanoes. Internal processes and their effects are examined, along with earth movement in mountain building, faulting, and folding. Second semester: The history of the earth, its changing features, and the development of its animal and plant inhabitants. Three hours classroom and three hours laboratory per week. **8 credit hours.**

**23. MINERALOGY** A course in descriptive mineralogy in which the various mineral groups are studied. Includes crystallography, general physical properties, and chemical and systematic mineralogy. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Alternates with 25. To be given 1965-66. Prerequisite: 11 and Chemistry 11-12.* **3 credit hours.**

**24. PETROLOGY** A systematic study of the modes of occurrence, origin, and classification of rock types. Laboratory studies will be focused on the megascopic identification of the common rocks. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Alternates with 26. To be given 1965-66. Prerequisite: 11 and 23.* **3 credit hours.**

**25. INTRODUCTORY PALEONTOLOGY** A systematic study of the invertebrate fossil groups, their evolution, and their relationships to living animals. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Alternates with 23. To be given 1964-65. Prerequisite: 11-12, or Biology 11-12, or Biology 23-24.* **3 credit hours.**

**26. STRATIGRAPHY AND SEDIMENTATION** A study of the origin, description, properties, classification, and methods of correlation of the stratified rocks and sediments. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Alternates with 24. To be given 1964-65. Prerequisite: 11-12. 3 credit hours.*

**32. ECONOMIC GEOLOGY** Covers the mineral fuels, coal, oil, and gas, the major ore deposits, and the building materials including their geographic distribution, geologic occurrence, origin, and uses. *Open to Sophomores and above. Alternates with 33. To be given 1965-66. Prerequisite: 11. 3 credit hours.*

**33. STRUCTURAL GEOLOGY** Properties, relationships, and positions of the component rock masses of the earth. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Alternates with 32. To be given 1964-65. Prerequisite: 11-12 and knowledge of trigonometry. 3 credit hours.*

**37. GEOMORPHOLOGY** The description and interpretation of the relief features of the earth's continents and ocean basins with a comprehensive study of the basic geologic processes which shape them. *Open to Sophomores and above. Alternates with 43. To be given 1964-65. Prerequisite: 11-12. 3 credit hours.*

**38. FIELD GEOLOGY** A course in some of the basic geological field techniques, with the preparation of topographic and geologic maps and reports from data obtained by the student in the field. Two hours classroom and three hours laboratory per week. *Open to Juniors and Seniors. Alternates with 44. To be given 1964-65. Prerequisite: 11-12 and 33. 3 credit hours.*

**43. ENGINEERING GEOLOGY** The main purpose of the course is to provide geology students with a knowledge of those phases of geology, soil and rock mechanics, and other earth sciences which are necessary for work with civil engineers. *Open to Juniors and Seniors. Alternates with 37. To be given 1965-66. Prerequisite: 11-12 and 33. 3 credit hours.*

**44. GEOCHEMISTRY** A systematic study of the chemistry of the earth, including principles governing the distribution and migration of the chemical elements as well as the abundance of the elements and atomic species in the earth, its aqueous envelope, and the atmosphere. *Open to Juniors and Seniors. Alternates with 38. To be given 1965-66. Prerequisite: Chemistry 11-12 and permission of the instructor. 2 credit hours.*

**91, 92. SEMINAR IN GEOLOGY** Individual problems. Reviews of current literature, and reports on selected readings. *Open only to Juniors and Seniors majoring or minoring in Geology. Prerequisite: permission of the instructor. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 11-12, 38, and 91, 92. In addition, Chemistry 11-12 and Mathematics 11, 12 are required along with at least one of the following year-courses: Biology 11-12 or 23-24, Physics 11-12. No grade in the Department lower than C may be counted toward the major.

**Minor:** 18 semester hours, including 11-12. Physics 23 may be counted toward this requirement.



# HISTORY

*Professors Kellogg and Pflaum*

*Visiting Professor Crist*

*Associate Professor Gates*

*Assistant Professors Young, Carson, and Nodder*

*Mr. Fischer*

The offerings in History are planned to serve the following purposes: to inform the student interested in man's past, to acquaint him with the leading interpretations of his heritage, to encourage him to comprehend and utilize historical perspectives, and to introduce him to the methodology and techniques of historical analysis. Students elect courses in the Department as a component of their liberal education, as a preparation for graduate study and for the teaching of history, to complement their work in other disciplines, and to provide a background for such careers as Law, Journalism, and Library Science.

**\*11, 12. HISTORY OF WESTERN CIVILIZATION** The elements of continuity and the phases of change in the civilization that matured in Europe from its beginnings in the Near East and Greece to its current expansion into other areas of the world. **3 or 6 credit hours.**

**\*17, 18. AMERICAN HISTORY** A survey of the colonial origins and national development of the United States from 1607 to the present. Some attention is given to interpretations by leading historians. *Open to Sophomores and above.* **3 or 6 credit hours.**

**19, 20. HISTORY OF THE FAR EAST** First semester: Political and social development of the people of Eastern Asia before they experienced extensive western influences. Second semester: The past century and a half with attention to relations with the western world. *Open to Sophomores and above. Given in alternate years. To be given 1965-66. Not open to students with credit for 85, 86.* **3 or 6 credit hours.**

**21, 22. HELLENIC HISTORY** The Greek people from prehistoric times to the Age of Constantine, with emphasis on the fourth and fifth centuries before Christ. *Alternates with 23, 24. To be given 1964-65. Prerequisite: 11.* **3 or 6 credit hours.**

**23, 24. ROMAN HISTORY** The Roman state from prehistoric times to the Middle Ages, with special attention to the Republic and the Principate. *Alternates with 21, 22. To be given 1965-66. Prerequisite: 11.* **3 or 6 credit hours.**

**25. MEDIEVAL HISTORY** The development of European civilization from the disintegration of Roman imperial authority to the late thirteenth century, with some attention to eastern Europe. *Prerequisite: 11.* **3 credit hours.**

**26. RENAISSANCE AND REFORMATION: 1300-1648** The transition from medieval to modern Europe interpreted with special attention to the interrelation of the economic, political, cultural, and religious forces of change. *Open to Sophomores and above. Not open to students with credit for 70. Given in alternate years. To be given 1964-65. Prerequisite: 11, 12. 3 credit hours.*

**37, 38. HISTORY OF GERMANY: Since 800** First semester: From the establishment of medieval Germany through the Reformation and dynastic absolutism, to the challenge to the German peoples of the Revolution and Napoleon. Second semester: The contest of liberalism and reaction, unification in the German Empire, and the twentieth century crises. *Open to Sophomores and above. Given in alternate years. To be given 1965-66. Prerequisite: 11, 12. 3 or 6 credit hours.*

**\*43, 44. ENGLISH HISTORY: 55 B.C. to Date** First semester: The political and social evolution of England to the end of the seventeenth century. Second semester: Britain and the Empire to the present. *Open to Sophomores and above. Prerequisite: 11, 12. 3 or 6 credit hours.*

**45. ENGLISH CONSTITUTIONAL HISTORY** The evolution of governmental and legal institutions in the context of English society. *Open to Sophomores and above. Prerequisite: 11, 12. 3 credit hours.*

**47. AMERICAN COLONIAL HISTORY** English America from the epoch of settlement through the achievement of independence. Particular attention is given to the causes and consequences of the American Revolution. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. Prerequisite: 17. 3 credit hours.*

**\*49, 50. AMERICAN INTELLECTUAL AND SOCIAL HISTORY** From the colonial period to mid-twentieth century including such topics as the transit of culture from Europe, sources of egalitarianism. Tocqueville's America, southern cultural nationalism, the social gospel and social protest, and intellectual dissent in the 1920's. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 17, 18. 3 or 6 credit hours.*

**55. RECENT AMERICAN HISTORY** The development of the United States since 1898 with emphasis upon reform movements, and the assumption and implications of great power status. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 17, 18. 3 credit hours.*

**56. HISTORY OF LATIN AMERICA** The age of exploration and conquest, Spanish and Portuguese colonial empires, the wars of independence, survey of representative national histories, and the relations of Latin America with the United States and Europe. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. 3 credit hours.*

**57. EUROPEAN INTELLECTUAL HISTORY** Main currents of Western thought from the Middle Ages to the present. The interaction of ideas and social development is stressed with attention to the influence of science and economic changes. Includes such topics as humanism, the scientific revolution, evolutionary thought, relativism, and contemporary criticism of the liberal tradition. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. Prerequisite: 11, 12. 3 credit hours.*

**58. HISTORY OF SCIENCE** In tracing the major developments in science as an aspect of Western Civilization, special attention will be devoted to the following areas: the scientific method of inquiry; social consequences of scientific discovery; noted discoveries in the physical and life sciences. *Open to Sophomores and above. Given in alternate years. To be given 1965-66. Prerequisite: 11, 12, or permission of the instructor. 3 credit hours.*

**69. ABSOLUTISM AND ENLIGHTENMENT: Europe 1648-1789** The response of Europe to the triumph of absolutist monarchs and to their claim to divine right.



Facets of the Enlightenment. A survey of Europe on the eve of the French Revolution. *Open to Sophomores and above. Prerequisite: 11, 12. 3 credit hours.*

**71. THE REVOLUTIONARY EPOCH: Europe 1789-1848** The forces of revolution, Napoleon, the search for order and stability through reaction, and the recurrent struggle to achieve a permanent liberal revolution. *Open to Sophomores and above. Prerequisite: 11, 12. 3 credit hours.*

**72. NATIONALISM AND IMPERIALISM: Europe 1848-1919** Nineteenth century materialism and the idea of progress; the unification of Germany and Italy with the attendant diplomatic adjustments; the First World War, the 1917 revolutions, and the Versailles settlement. *Open to Sophomores and above. Prerequisite: 11, 12. 3 credit hours.*

**73, 74. HISTORY OF RUSSIA** First semester: From earliest times to the reign of Nicholas II. Second semester: Fall of the czardom, the Russian revolution, and the Communist state from Lenin to Khrushchev. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. Prerequisite: 11, 12. 3 or 6 credit hours.*

**76. RECENT EUROPE: Since 1919** Political, economic, and social sequels to Versailles; the challenge to European dominance and changing relations with Russia and the United States; the rise of totalitarianism to World War II and its consequences. *Open to Sophomores and above. Prerequisite: 11, 12. 3 credit hours.*

**79. ECONOMIC HISTORY OF THE UNITED STATES** *Open to Juniors and Seniors. Prerequisite: 17, 18. See Economics 71. 3 credit hours.*

**81. DIPLOMATIC HISTORY OF THE UNITED STATES** Emphasis upon the diplomacy of the early Republic, expansion, the emergence of the United States as a world power, and the use of collective security. *Open to Juniors and Seniors. Prerequisite: 17, 18. 3 credit hours.*

**87. AMERICAN CONSTITUTIONAL HISTORY** The framing of the Federal Constitution and its historical development, with emphasis on evolving interpretation by the courts. *Open to Juniors and Seniors. Given in alternate years. To be given 1964-65. Prerequisite: 17, 18, or permission of the instructor. 3 credit hours.*

**88. AMERICAN HISTORY IN THE CIVIL WAR PERIOD** The period from the end of the Mexican War through the Civil War. The background is treated and attention is directed to both military and nonmilitary aspects. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 17, 18. 3 credit hours.*

**90. HISTORIOGRAPHY** Analysis of the major interpretations of history, e.g., economic, idealistic, biographic, approaches to the understanding of the past. Representative writings of historians of the past and present are used to illustrate differing points of view. *Open to Juniors and Seniors. Prerequisite: 11, 12, 17, 18. 3 credit hours.*

**\*91, 92. HISTORY SEMINAR** An introduction to the craft of the historian. Includes discussion of theories on the meaning of history, and study of research methods involving the solution of selected problems. In the second semester the student prepares an extended paper. *Open to Juniors and Seniors. Prerequisite: 11, 12, 17, 18, and at least a 3.00 average in History. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Opens to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 11, 12, 17, 18, and either 90 or 91, and at least 3 hours from each of the following groups:

Group A: 21, 22, 23, 24, 25, 26, 37, 38, 43, 44, 45, 57, 69, 71, 72, 73, 74, 76.

Group B: 47, 49, 50, 55, 79, 81, 87, 88.

**Minor:** 18 semester hours, including 11, 12, 17, 18.

**Note:** Students contemplating honors should elect 91, 92 in their Junior year.

# LAW

*See page 27*

# MATHEMATICS

*Professors Miller and Nelson*

*Associate Professors Kerr, Benson, and Light*

*Assistant Professor Kneen*

Mathematics is generally regarded as one of the best preparations for professions which require accuracy and precise thinking. Calculus and Statistics are basic for advanced work in Economics, Psychology, Sociology, and the Biological Sciences; Calculus and Differential Equations are basic for advanced work in the Physical Sciences. A major in Mathematics may use his knowledge in engineering, in actuarial work, in civil service employment of various kinds, in industrial and business positions, and in teaching mathematics in secondary schools and colleges.

**\*1, 2. FUNDAMENTAL CONCEPTS OF MATHEMATICS** This is a study of logic, sets, deductive systems, concepts related to number systems, algebraic laws, functions, limits and applications of limits to differential and integral calculus. **3 or 6 credit hours.**

**\*5, 6. COLLEGE ALGEBRA AND TRIGONOMETRY** A tool course designed to cover the basic principles of college algebra and trigonometry. It is intended primarily to satisfy the minimum mathematical requirements to enable premedical and pre dental students to undertake the study of Chemistry and Physics. **3 or 6 credit hours.**

**\*11, 12. ANALYTIC GEOMETRY AND CALCULUS I & II** An integrated study of the principles, processes, and applications of analytic geometry and calculus. *Prerequisite: 6 or the equivalent.* **3 or 6 credit hours.**



**13. ELEMENTARY STATISTICS A** Introduction to standard methods of statistical analysis: descriptive measures, confidence intervals, tests of hypotheses and significance, time series, and index numbers. Applications to business and economics stressed. *Open to Sophomores and above. Open to Freshmen with permission of the instructor. Not open to students with credit for 14 or 23. 3 credit hours.*

**14. ELEMENTARY STATISTICS B** Introduction to standard methods of statistical analysis: descriptive measures, confidence intervals, tests of hypotheses and significance, correlation, and regression. Applications are made to the social sciences and to psychology. *Open to Sophomores and above. Open to Freshmen with permission of the instructor. Not open to students with credit for 13 or 23. 3 credit hours.*

**\*15, 16. ANALYTIC GEOMETRY AND CALCULUS III & IV** A continuation of analytic geometry and calculus through transcendental functions, formal integration, multiple integrals, infinite series, and partial differentiation, with applications and supporting analytical geometry. *Open to Sophomores and above. Prerequisite: 12. 3 or 6 credit hours.*

**17. SEMINAR IN SETS AND LOGIC** Introduction to the language of sets, symbolic logic, definition, and proof. **1 credit hour.**

**18. SEMINAR ON THE NUMBER CONCEPT** Fundamental properties of integers, modular arithmetic, rational numbers, irrational numbers, complex numbers, the use of "infinite" in mathematics, the special numbers  $e$  and  $\pi$ . *Prerequisite: 17. 1 credit hour.*

**19. SEMINAR ON CLASSICAL GEOMETRIC CONCEPTS** The axiomatic method, projective transformations, parallelism and infinity, noneuclidean geometry, higher dimensional geometry, dimension concept. *Prerequisite: 17. 1 credit hour.*

**\*23, 24. STATISTICS** A study of frequency distributions, averages, dispersion, moments, the normal curve, probability, binomial and Poisson distributions, tests of hypotheses and significance, curve fitting, regression, and correlation. *Open to Sophomores and above. 23 not open to students with credit for 13 or 14. Prerequisite for 23: 11, or the equivalent. Prerequisite for 24: 23, or 11 and 13 or 14 with a grade of at least C. 3 or 6 credit hours.*

**29. NUMBER THEORY** The development of the number system, arithmetic operations, primes, congruences, totients, Diophantine equations, and continued fractions. *Open to Sophomores and above. Prerequisite: 6 or the equivalent. 3 credit hours.*

**30. THEORY OF EQUATIONS** Methods of determining the roots of an algebraic equation, Sturm's theorem, approximations, determinants, symmetric functions, simultaneous equations, Graeffe's method. *Open to Sophomores and above. Prerequisite: 6 or the equivalent. 3 credit hours.*

**37. DIFFERENTIAL EQUATIONS** A study of elementary differential equations. Ordinary equations of the first and second order, linear equations, power series solutions, partial differential equations, and other topics. *Open to Juniors and Seniors. Prerequisite: 15. 3 credit hours.*

**41. FUNDAMENTAL CONCEPTS OF GEOMETRY** Foundations and evolution of geometry, projective geometry, affine geometry, Euclidean and non-Euclidean geometries, modern abstract geometries. *Open to Juniors and Seniors. Prerequisite: 17. 3 credit hours.*

**42. TOPICS IN GEOMETRY** Selected topics in geometry such as projective geometry, solid analytic geometry, differential geometry, or topology. *Open to Juniors and Seniors. Prerequisite: 17. 3 credit hours.*

**\*55, 56. MODERN ALGEBRA I & II** A study of selected topics in modern algebra such as set and group theory, linear algebra, vectors, matrices, and determinants. *Open to Juniors and Seniors. Prerequisite: 17, 18. 3 or 6 credit hours.*

**\*57, 58. TOPICS IN ADVANCED CALCULUS** Real numbers, sequences, functions, limits, continuity, derivative of a function, mean value theorem and consequences, partial derivatives and applications, line and surface integrals, and power series. *Open to Juniors and Seniors. Prerequisite: 16. 3 or 6 credit hours.*

**91, 92. SEMINAR** A reading, research, and conference course in various fields. *Open to Juniors and Seniors. Prerequisite: Permission of the Chairman of the Department. 1 to 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours.

**Minor:** 18 semester hours.

**Notes: 1.** The mathematics requirements for the degree of Bachelor of Science may be satisfied by any of the following: Mathematics 1-2, 5-6, or 11, 12.

**2.** It is recommended that the student who desires to major in Mathematics schedule 11, 12, and 17, 18 during the Freshman year and 15, 16, and 19 during the Sophomore year.

**3.** It is also recommended that every student intending to become a Mathematics major take Physics 11-12.





# MECHANICAL DRAWING

**24L. MECHANICAL DRAWING** Theory and practice of mechanical drawing; lettering, use of instruments; orthographic projections; sectioning; isometric, oblique, and perspective drawings; developments and intersections. Six hours of drawing per week. *Open to Sophomores and above. Given occasionally. Prerequisite: Plane Geometry.*  
**3 credit hours.**

## MILITARY SCIENCE

*PMS: Major Cam J. Hurst*

*Asst. PMS: Major Thomas H. Hastings and Captain Eugene R. McBride*

*Enlisted Instructors: Master Sergeant DeBorde, Staff Sergeants Bloom and Beougher, Sergeant First Class Walter J. Kogut*

**1-2. MILITARY SCIENCE I** Drill and Command; Organization of the Army and ROTC; Individual Weapons Marksmanship; American Military History. Two hours classroom and two hours Leadership Laboratory per week. *Freshman course.* **4 credit hours.**

**10-11. MILITARY SCIENCE II** Drill and Command; Topography and Aerial Photograph Interpretation; Basic Tactics; U. S. Army in National Security. Two hours classroom and two hours Leadership Laboratory per week. *Sophomore course.* **4 credit hours.**

**20-21. MILITARY SCIENCE III** Drill and Command; Leadership; Military Teaching Principles; Branches of the Army; Small Unit Tactics and Communications. Three hours classroom and two hours Leadership Laboratory per week. *Junior course.* **6 credit hours.**

**30-31. MILITARY SCIENCE IV** Drill and Command; Command and Staff; Logistics; Personnel Management (military administration, military justice); Service Orientation (role of the United States in world affairs, leadership, officer indoctrination). Three hours classroom and two hours Leadership Laboratory per week. *Senior course.* **6 credit hours.**

**Notes: 1.** Enrollees successfully completing MSIII are required to attend camp under direct Army supervision for six weeks during the summer. This is normally between their Junior and Senior years.

**2.** Except in special circumstances (which require specific approval), students who enroll in either the Basic Course (Military Science I & II) or in the Advanced Course (Military Science III & IV), must successfully complete the two year course in which they enroll in order to graduate.

# MODERN LANGUAGES AND LITERATURES

*Professors Angiolillo, Kennedy, Kirk, Maurino\*, and Ramos\**  
*Visiting Professors Frey, Learned, and Whitehouse*  
*Associate Professors Royce and Bogojavlensky*  
*Assistant Professors Edberg and Dewis*  
*Mr. Gray, Mrs. Kluge-Giglio, and Miss Light*

The courses in Modern Languages are designed to provide well-balanced training in the language, literature, and civilization for those who elect a major or minor in the Department. Those who do not wish to meet the requirements for a major or minor may elect any courses for which they have the prerequisites as stated in the description of the courses.

All Elementary and Intermediate language courses include 3 hours classroom and 2 hours language laboratory. However, students in the Intermediate language courses who demonstrate unusual proficiencies in the oral aspects of the language (pronunciation, and basic comprehension and conversation) will, on the recommendation of the Modern Language Department, be excused from the laboratory classes for one or both semesters. Such students will thus complete the work of the Intermediate language courses with 6 or 7 credit hours, instead of 8.

## FRENCH

**1-2. ELEMENTARY FRENCH** Drill in sentence patterns. Special attention to pronunciation and oral work. Composition and reading. **8 credit hours.**

**11-12. INTERMEDIATE FRENCH** Emphasis on oral work. Readings and composition. *Prerequisite: 1-2, or the equivalent.* **6 to 8 credit hours.**

**\*31, 32. FRENCH CONVERSATION AND COMPOSITION** The chief aim of this course is to teach the student to speak and understand the language. Composition with attention to grammar. Course conducted in French. *Prerequisite: 12, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*Refresher-Year Leave 1963-64.**



**\*33, 34. SURVEY OF FRENCH LITERATURE** A study of masterpieces of French literature. *Prerequisite: 12, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*41, 42. ASPECTS OF FRENCH CIVILIZATION** A study of French history and culture from the beginnings to the present. Intensive oral work. Written composition with attention to grammar and style. Conducted in French. *Prerequisite: 32. 3 or 6 credit hours.*

**\*51, 52. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY** Reading and discussion of representative works of important writers of the century. Collateral readings and reports. *Given in alternate years. To be given 1965-66. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*53, 54. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY** Reading and discussion of representative works of important writers of the century. Collateral readings and reports. *Given in alternate years. To be given 1965-66. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*55, 56. FRENCH LITERATURE OF THE NINETEENTH CENTURY** Reading and discussion of representative works of important writers of the century. Collateral readings and reports. *Given in alternate years. To be given 1964-65. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*57, 58. FRENCH LITERATURE FROM 1900 TO THE PRESENT** Reading and discussion of representative works of important writers of the period. Collateral readings and reports. *Given in alternate years. To be given 1964-65. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Note:** For requirements of major and minor see page 69.

## GERMAN

**1-2. ELEMENTARY GERMAN** Study of the fundamentals of German grammar. Reading of short stories and poetry. Emphasis on oral expression. **8 credit hours.**

**11-12. INTERMEDIATE GERMAN** Review of the fundamental principles of grammar. Intensive reading of prose and poetry, with emphasis on vocabulary building. Oral practice based on material read. *Prerequisite: 1-2, or the equivalent. 6 to 8 credit hours.*

**\*31, 32. GERMAN CONVERSATION AND COMPOSITION** Training in the speaking and writing of everyday German. Intensive review of grammar; course conducted in German. *Prerequisite: 12, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*33, 34. SURVEY OF GERMAN LITERATURE** An introduction to German literature presenting its development from the earliest period to the present time. Lectures on readings from representative works. *Prerequisite: 12, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*41, 42. ASPECTS OF GERMAN CIVILIZATION** A study of German history and culture from the beginnings to the present. Intensive oral work. Written composition with attention to grammar and style. Conducted in German. *Prerequisite: 32. 3 or 6 credit hours.*

**\*61, 62. GOETHE AND SCHILLER** Reading in Goethe's poems and major prose works during the fall semester. The spring semester is devoted to Schiller's ballads, dramas, and prose writings. *Given occasionally. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**65. THE GERMAN LYRIC** A survey of German lyric poetry from its origins to the present. Reading and discussion of representative authors. *Given occasionally. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 credit hours.*

**66. THE GERMAN DRAMA** The development of German drama from the medieval mystery plays to the dramatic productions of modern times. Reading and interpretation of representative dramas. *Given occasionally. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 credit hours.*

**67. THE GERMAN SHORT STORY** The development of the *Novelle* from Goethe to Thomas Mann, with special emphasis on the authors identified with Romanticism, Poetic Realism, and modern literary movement. Reading and discussion of representative *Novellen*. *To be given 1964-65. Prerequisite: 34, or the equivalent, with a grade of at least C. 3 credit hours.*

**72. HISTORY OF THE GERMAN LANGUAGE** A study of the various periods of the language, with special emphasis on the influence of individual men and historical circumstances on the development of forms and meanings. *To be given 1964-65. Prerequisite: 12, or the equivalent, with a grade of at least C. 3 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Note:** For requirements of major and minor see page 69.

## ITALIAN

**1-2. ELEMENTARY ITALIAN** Thorough review in grammar. Special attention given to pronunciation and oral work. Composition and graded readings. **8 credit hours.**

**11-12. INTERMEDIATE ITALIAN** Grammar review. Reading and Composition. Emphasis on oral work. *Prerequisite: 1-2, or the equivalent. 8 credit hours.*

## RUSSIAN

**1-2. ELEMENTARY RUSSIAN** Thorough drill in grammar. Special attention given to pronunciation and oral work. Composition and graded readings. **8 credit hours.**

**11-12. INTERMEDIATE RUSSIAN** Grammar review. Reading and composition. Emphasis on oral work. *Prerequisite: 1-2, or the equivalent. 8 credit hours.*

**\*21-22. RUSSIAN CONVERSATION AND READING** Practice in everyday conversation. Reading and discussion of short works by well-known Russian authors. Conducted in Russian. *To be given in alternate years. To be given 1964-65. Prerequisite: 12, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*

**\*23, 24. MASTERPIECES OF RUSSIAN LITERATURE** Reading and discussion of representative works by classic, modern, and Soviet authors. Conducted in Russian. *To be given in alternate years. To be given 1965-66. Prerequisite: 12, or the equivalent, with a grade of at least C. 3 or 6 credit hours.*



## SPANISH

**1-2. ELEMENTARY SPANISH** Drill in sentence patterns. Special attention to pronunciation and oral work. Composition and reading. **8 credit hours.**

**11-12. INTERMEDIATE SPANISH** Emphasis on oral work. Readings and composition. *Prerequisite: 1-2, or the equivalent.* **6 to 8 credit hours.**

**\*31, 32. SPANISH CONVERSATION AND COMPOSITION** The chief aim of this course is to teach the student to speak and understand the language. Composition with attention to grammar. Course conducted in Spanish. *Prerequisite: 12, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*33, 34. SURVEY OF SPANISH LITERATURE** A study of masterpieces of Spanish literature. *Prerequisite: 12, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*41, 42. ASPECTS OF SPANISH AND SPANISH-AMERICAN CIVILIZATION** A study of general aspects of the history and culture of Spain and Spanish influence in the Western Hemisphere. Intensive oral work. Written composition with special attention to grammar and style. Conducted in Spanish. *Prerequisite: 32.* **3 or 6 credit hours.**

**\*51, 52. SPANISH LITERATURE OF THE GOLDEN AGE** Reading and discussion of representative works of important writers of the Golden Age. Collateral readings and reports. *Given in alternate years. To be given 1965-66. Prerequisite: 34, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*55, 56. SPANISH LITERATURE OF THE NINETEENTH CENTURY** Reading and discussion of representative works of important writers of the century. Collateral readings and reports. *Given in alternate years. To be given 1964-65. Prerequisite: 34, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*57, 58. SPANISH LITERATURE FROM 1900 TO THE PRESENT** Reading and discussion of representative works of important writers of the period. Collateral readings and reports. *Given in alternate years. To be given 1965-66. Prerequisite: 34, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**\*71, 72. SPANISH-AMERICAN LITERATURE** A course designed to give the student a survey of Spanish-American literature and civilization and an introduction to some of the more important authors from the colonial period to the present. *Given in alternate years. To be given 1964-65. Prerequisite: 34, or the equivalent, with a grade of at least C.* **3 or 6 credit hours.**

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index.* **6 credit hours.**

## REQUIREMENTS FOR MAJOR AND MINOR IN FRENCH, GERMAN, AND SPANISH

**Major:** 11-12, 31, 32, 33, 34, 41, 42, and six additional hours chosen from courses numbered above 50, or the equivalent of these courses.

**Minor:** 11-12, 31, 32, and 33, 34, or the equivalent of these courses.

**Note:** To elect a major or minor, a student must have attained an inclusive average of at least 2.00 in all French, German, or Spanish courses taken in college. No grade in the Department lower than C may be counted toward the major.

# MUSIC

*Assistant Professor Posey and Mr. Mueller*

Courses in music are offered in the belief that musical styles and forms are neither accidents nor processes divorced from all other aspects of man's evolution, but are reflections of his best thought throughout the ages, and therefore constitute a history of ideas. Instruction in music is available to students whose interest is of a general nature and to students who anticipate graduate or professional study. The offerings of the Department are designed to enable students to acquire a balanced program of study in the basic disciplines of music through training in the theory (or technical elements) of music, acquaintance with its history and literature, and advanced performing experience through participation in vocal and instrumental ensembles.

**11, 12. HISTORY OF MUSIC** An introductory course in music designed to train students in intelligent listening through discussion and analysis of selected representative works from plainsong through contemporary music. The primary objective of the course is to provide the student with such knowledge and understanding that may lead to an intelligent life-long interest in music. **3 or 6 credit hours.**

**\*17, 18. INTRODUCTION TO THE THEORY OF MUSIC** A survey of the elementary materials of music. The student is acquainted with some fundamental means of organizing these materials through first-hand contact with simple problems in melodic, contrapuntal, and harmonic techniques. *Given in alternate years. To be given 1965-66. Prerequisite: 11 or 12.* **3 or 6 credit hours.**

**25-26. HARMONY** An introduction to the basic elements of harmony by means of discussion, analysis, and written exercises, complemented by intensive drill in sight singing, ear training, and keyboard harmony. *Open to Sophomores and above. Prerequisite: 11 and 12, or concurrent registration.* **8 credit hours.**

**31. TWENTIETH-CENTURY MUSIC** A survey of the major trends in music during the twentieth century. *Open to Juniors and Seniors. Also open to Sophomores with the permission of the instructor. Given in alternate years. To be given 1964-65.* **3 credit hours.**

**32. HISTORY OF OPERA** A survey of operatic literature from its inception to the present. *Open to Juniors and Seniors. Also open to Sophomores with the permission of the instructor. Given in alternate years. To be given 1964-65.* **3 credit hours.**



**33. INSTRUMENTAL MUSIC** A discussion of selected topics in instrumental music, e.g., symphonic literature, chamber music, and keyboard literature. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to Juniors and Seniors. Also open to Sophomores with the permission of the instructor. Given in alternate years. To be given 1965-66. 3 credit hours.*

**34. VOCAL MUSIC** A discussion of selected topics in vocal music, e.g., choral literature, history of the art song, and music in the theatre. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to Juniors and Seniors. Also open to Sophomores with the permission of the instructor. Given in alternate years. To be given 1965-66. 3 credit hours.*

**35. BIOGRAPHICAL STUDIES** A study of the life and works of a major composer, e.g., Bach, Beethoven, Mozart, or Bartok. The content of the course will be altered from year to year in order to provide a diversity of subject matter. *Open to Juniors and Seniors. Also open to Sophomores with the permission of the instructor. To be given occasionally. 3 credit hours.*

**41. SEMINAR IN MEDIEVAL AND RENAISSANCE MUSIC** Study of the principal styles and forms of music from plainsong to 1600. *Open to Juniors and Seniors. Given in alternate years. To be given 1964-65. Prerequisite: 25-26. 3 credit hours.*

**42. SEMINAR IN BAROQUE MUSIC** Study of the principal styles and forms of music from 1600 to 1750. *Open to Juniors and Seniors. Given in alternate years. To be given 1964-65. Prerequisite: 25-26. 3 credit hours.*

**45, 46. COUNTERPOINT** Study of the contrapuntal practice of two great polyphonic periods, emphasizing analysis and written exercises. 45: Fifteenth and sixteenth-century practice; 46: Eighteenth-century practice. *Open to Juniors and Seniors. Given in alternate years. To be given 1964-65. Prerequisite: 25-26. 3 or 6 credit hours.*

**51. SEMINAR IN CLASSIC AND ROMANTIC MUSIC** Study of the principal styles and forms of music from c. 1720 to 1900. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 25-26. 3 credit hours.*

**52. SEMINAR IN TWENTIETH-CENTURY MUSIC** Study of the principal styles and forms of music from 1900 to the present. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 25-26. 3 credit hours.*

**95, 96. SENIOR SEMINAR** Studies in music history and advanced theory, conducted through regular conferences and assigned writing. Open to Seniors majoring in music who have demonstrated their ability to pursue independent research in at least two courses from this group: 41, 42, 51, 52. *Prerequisite: Permission of the Chairman of the Department. 3 or 6 credit hours.*

**97-98. INDEPENDENT STUDIES or**

**101-102. HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**COLLEGE CHOIR** A mixed choir open to everyone in the campus community. It performs two major works a year. *Prerequisite: Permission of the Director. Non-Credit.*

**CONCERT CHORALE** This ensemble of thirty-five voices, carefully selected for vocal potential and musicianship, presents several public performances each year, both on and off campus. Membership in this group automatically means membership in the College Choir. *Prerequisite: Permission of the Director. Non-Credit.*

**WOMEN'S GLEE CLUB** A group of forty voices, comparable to the Men's Glee Club, which performs both sacred and secular works from all periods. Membership in the group automatically means membership in the College Choir. *Prerequisite: Permission of the Director.* **Non-Credit.**

**OPERA WORKSHOP** Auditions are held each year for a program of full operatic production. Recent productions include Hansel and Gretel, Amahl and the Night Visitors, Die Fledermaus, H.M.S. Pinafore, and The Mikado. *Prerequisite: Permission of the Director.* **Non-Credit.**

**THE CONCERT BAND** A symphonic wind ensemble offering instrumentalists on the campus the experience of playing the finest music from the band repertoire. *Prerequisite: Permission of the Director.* **Non-Credit.**

**THE COLLEGE-COMMUNITY ORCHESTRA** Open to students at the college and to instrumentalists from the surrounding area interested in the performance and study of the best in orchestral literature. *Prerequisite: Permission of the Director.* **Non-Credit.**

**THE COLLEGIUM MUSICUM** A small, select group of singers and instrumentalists drawn from the student body and faculty for the purpose of studying and performing masterpieces not feasible with larger, less-experienced groups. *Prerequisite: Permission of the Director.* **Non-Credit.**

**Major:** 32 semester hours, including 11, 12, 25-26, 45-46, and twelve additional hours in courses numbered 41 and above.

**Minor:** 20 semester hours, including 11, 12, 25-26, and six additional hours from the following group: 41, 42, 45-46, 51 and 52.

**Note:** Students planning to major in Music should complete 25-26 during their Sophomore year. A knowledge of French and German is necessary for graduate study in music.



# PHILOSOPHY AND RELIGION

*Associate Professors Ferré and Bonney*  
*Assistant Professors Magill and Washington*  
*Dr. Allan and Mr. Allshouse*

## PHILOSOPHY

Courses in Philosophy teach students how to think critically and coherently about some of the most fundamental problems of life and the universe. Important answers to these problems are examined both for their cultural and historical importance and for their value in aiding each student form his own philosophic ideas. Majors in Philosophy are offered a central liberal arts education which, in addition to its intrinsic value, can provide, with appropriate related work, excellent preparation for graduate study and teaching in several fields and the basis for careers in such areas as the Law, the Ministry, or in policy making positions of many kinds.

**11. INTRODUCTION TO PHILOSOPHY** An exploration of the chief problems of philosophy with special emphasis on primary source readings and discussion. Topics examined include the status of morality and of values in general, the character of ultimate reality, and the nature of human "knowledge" about these and other topics. This course should be taken as a foundation for all the other offerings in this field (except Philosophy 32). **3 credit hours.**

**31. MORAL PHILOSOPHY** A critical examination of the major ethical theories, with emphasis on the attempt to determine the status of moral values as objective or subjective, absolute or relative. *Open to Sophomores and above. Prerequisite: 11.* **3 credit hours.**

**32. LOGIC** The principles and conditions of correct thinking. A careful examination is made of the nature of proof and the detection of fallacies. The laws of correct reasoning, deductive and inductive, are applied to thinking in everyday life. In the latter part of the course methods of symbolic logic and of scientific investigation receive special attention. *Open to Sophomores and above and to Freshmen who have completed 11.* **3 credit hours.**

**33, 34. ORIENTAL PHILOSOPHY** A study of major philosophical systems of the Orient. During the first semester primary attention will be given to the Vedānta System and its relation to Indian culture; the second semester will focus on Buddhism and its relation to Chinese and Japanese culture. *Open to Sophomores and above. Prerequisite: 11.* **2 or 4 credit hours.**

**36. AESTHETICS** An attempt to understand all the forms of art through the use of careful philosophical methods, including a critical study of the more important classical and modern theories of beauty and related values. *Open to Juniors and Seniors. Prerequisite: 11 or permission of the instructor. 3 credit hours.*

**39. PHILOSOPHY OF SCIENCE** An attempt to understand science as one of mankind's great intellectual creations. Emphasis is placed on the conceptual structures and methods used in scientific thinking, the relations between the particular sciences, and the logical character of scientific laws, theories, and presuppositions. General questions about knowledge, values, and ultimate beliefs are also explored in relation to the procedures and findings of the sciences. *Open to Juniors and Seniors. Prerequisite: 11 or 32, or permission of the instructor. 3 credit hours.*

**40. PHILOSOPHY OF RELIGION** An attempt to understand religion through the application of rigorous philosophic methods, including a critical examination of possible solutions to some persistent religious problems such as the existence of God, religious knowledge, the problem of evil, free will, and immortality. (Also named Religion 40.) *Open to Juniors and Seniors. Prerequisite: 11 or permission of the instructor. 3 credit hours.*

**41, 42. HISTORY OF PHILOSOPHY** A critical examination of the great sweep of philosophic development within Western Civilization from the beginnings of philosophy until the nineteenth century. Readings are chosen from key primary sources. The first semester includes study of the germinal Pre-Socratics, some of the most important of the Platonic dialogues, selections from Aristotle, and outstanding medieval philosophers. The second semester deals with crucial developments in Western thought from the origin of modern philosophy, including Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, and Kant. *Open to Sophomores and above. Prerequisite: 11. 3 or 6 credit hours.*

**48. CONTEMPORARY PHILOSOPHY** A study of the present philosophical situation with emphasis on recent forms of pragmatism, positivism, and existentialism. Special attention is given to the thought of Dewey, Whitehead, Russell, and Sartre. *Open to Juniors and Seniors. Prerequisite: 11. 41, 42 recommended but not required. 3 credit hours.*

**51. THE PHILOSOPHY OF PLATO** The development of the thought of Plato. Texts include the *Republic* and selections from the early, middle, and late dialogues. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 11. 3 credit hours.*

**54. EPISTEMOLOGY** A critical systematic study of various theories of knowledge with emphasis on contemporary expressions of great historical traditions. *Open to Juniors and Seniors. Alternates with 56. To be given 1964-65. Prerequisites: 11. 3 credit hours.*

**56. METAPHYSICS** A critical and systematic study of various theories of ultimate reality with emphasis on modern expressions of great historical traditions, including views on the nature of the metaphysical enterprise itself. *Open to Juniors and Seniors. Alternates with 54. To be given 1965-66. Prerequisite: 11. 3 credit hours.*

**95, 96. JUNIOR SEMINAR** A reading and conference course required of Philosophy majors and open to selected non-majors. *Prerequisite: Permission of the Chairman of the Department. 1 to 6 credit hours.*

**97, 98. SENIOR SEMINAR** A reading and conference course on advanced topics in Philosophy required of Philosophy majors and open to selected non-majors. *Prerequisite: Permission of the Chairman of the Department. 1 to 6 credit hours.*



**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 11, 31, 32, 41, 42, 48, and 95-98.

**Minor:** 18 semester hours, including 11, 41, and 42.

**Note:** Students who plan to make Philosophy their major field of study should arrange to take Philosophy 41 and 42 (and, if possible, Philosophy 32) in their Sophomore year.

## RELIGION

Courses in Religion aim to help students understand and appreciate the religious dimension of human life and the various forms in which this has found expression throughout human history. Particular emphasis is placed on the Judeo-Christian tradition, but studies are also made of the religious concepts and moral values found in other traditions. The offerings of this Department can help students in the development of personal religious faith, enabling them to find purpose and a sense of values by which to live, a fundamental prerequisite to any vocation. These courses also can give the basic groundwork needed by those who wish to enter a theological seminary and prepare for various phases of the Christian ministry.

**15, 16. INTRODUCTION TO BIBLICAL RELIGION** A survey to assist the student to develop a scholarly approach to the Bible and help him become aware of the underlying concepts of the Judeo-Christian heritage. Historical and literary settings where religious ideas are expressed are studied, and the methods and tools of modern Biblical research are given attention. Emphasis is placed on the relevance of biblical concepts for the present day. The first semester deals with the material of the Old Testament, the second with that of the New Testament. **3 or 6 credit hours.**

**Note:** Both semesters are required of Religion majors and minors, and should be taken in the Freshman year if possible. Other students may take either semester alone for credit, but both are highly recommended.

**17. POETIC AND WISDOM LITERATURE OF OLD TESTAMENT** The Hebrew religion: its poetic and reflective literature; the theological teachings of the Psalms; the practical wisdom and ethics of Proverbs dealing with the successful management of life; the pessimism and skepticism of Ecclesiastes; and the problem of evil and suffering as presented in Job. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 15. 3 credit hours.*

**19. THE HEBREW PROPHETS** A critical study of the major prophets of Israel. Selected prophetic books of the Old Testament, with the help of commentaries and other interpretative material, are studied. An effort is made to understand the ethical and religious contribution of each prophet studied to prophetic religion as a whole. Emphasis is placed on the relevance of prophetic teaching for the present day. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 15. 3 credit hours.*

**21. THE LIFE AND TEACHINGS OF JESUS** A critical study of the Gospels as the source of knowledge concerning Jesus and his teachings. Emphasis is placed on the relevance of the ethical and religious teachings for Jesus' own day and for the present. Selected biographies of Jesus are read to supplement the study of the Gospel. *Open to Juniors and Seniors. Prerequisite: 16. 3 credit hours.*



**23. HISTORY OF CHRISTIAN THOUGHT: Early and Medieval** Main developments in the life and thought of the Christian Church from the first century through the Middle Ages. Special emphasis on the historic formulations of the Christian faith, growth of the church, and representative theologians. *Open to Sophomores and above. Prerequisite: 16. 3 credit hours.*

**24. HISTORY OF CHRISTIAN THOUGHT: Modern and Contemporary** A study of the main developments in the life and thought of the Christian Church from the Reformation to the present. Special emphasis on the beliefs and growth of Protestantism and on representative European and American theologians. *Open to Sophomores and above. Prerequisite: 16. 3 credit hours.*

**26. VARIETIES OF RELIGION IN AMERICAN LIFE** An examination of Judaism, Roman Catholicism, and Protestantism, as these three classic faiths have developed and live in the American setting. Attention will be given to several forms in which Judaism and Protestantism have expressed themselves. The three faiths, and American religion in general, will be studied from historical, sociological, and theological viewpoints. *Open to Juniors and Seniors. Prerequisite: 16. 3 credit hours.*

**27. PSYCHOLOGY OF RELIGION** An examination of the mental processes involved in religious experience. Special attention to the nature of religion, religious attitudes of childhood and adolescence, conversion, worship, prayer, mysticism, the sense of sin and forgiveness, and the belief in God and immortality. *Open to Juniors and Seniors. Given occasionally. Prerequisite: 16 or permission of the instructor. 3 credit hours.*

**28. FAITHS OF MANKIND** A comparative study of the non-Christian religions of the world, including primitive religion and the religions of India, China, Japan, and the Middle East. Emphasis is placed on world-views, ethical teachings, and institutions, and comparisons are made with Christianity. *Open to Sophomores and above. 3 credit hours.*

**29. CHRISTIAN SOCIAL ETHICS** An examination of the ways by which various segments of the Christian community have sought historically to relate the claims of faith to the demands of social existence. Attention is given to some contemporary representatives of these positions in their articulation of the political and economic ramifications. Other social questions considered are sex and related medical problems, international politics and war, and racial discrimination. *Open to Juniors and Seniors. Prerequisite: 16 or permission of the instructor. 3 credit hours.*

**40. PHILOSOPHY OF RELIGION** *Open to Juniors and Seniors. Prerequisite: 11 or permission of the instructor. See Philosophy 40. 3 credit hours.*

**Note:** A Religion major taking this course for Religion credit must have six hours of Religion as a prerequisite.

**95, 96. SEMINAR** A reading and conference course. *Open to Juniors and Seniors. Prerequisite: Permission of the instructor. 1 to 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 15, 16, 23, 24, 28, 40, 95, and 96. Sociology 76 may be counted toward this requirement.

**Minor:** 18 semester hours, including 15 and 16. Sociology 76 may be counted toward this requirement.



# PHYSICAL EDUCATION

*Associate Professor Eavenson*

*Assistant Professors Seibert, DuCharme, Strayer, Gobrecht, and Barber*

*Miss Brachen and Mr. McElhaney*

Physical Education is required of all men and women. This work is scheduled in the Freshman and Sophomore years, two hours each week, and earns one credit for each of the four semesters. For transfer students, proof of satisfactory completion of the equivalent amount of Physical Education must be presented. Credit in Physical Education will be given for military service on the basis of two credits for each year of military service. Four credits are required for graduation.

The work is composed of instruction and practice in individual activities of a nature that will have a definite carry-over value, such as golf, tennis, badminton, swimming, squash, volleyball, archery, bowling, first aid, dancing, and physical fitness.

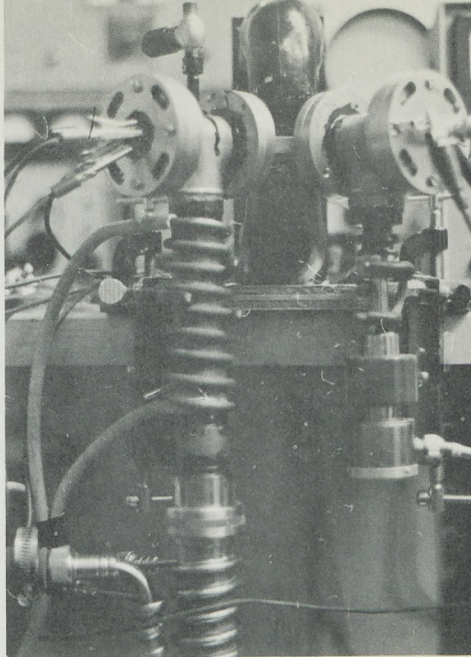
# PHYSICAL SCIENCE

An interdepartmental offering in the physical sciences including astronomy, chemistry, geology, and physics.

**13-14. PHYSICAL SCIENCE** Basic principles in astronomy, chemistry, geology, and physics. This course, designed for the non-science student, satisfies the science requirement for the degree of Bachelor of Arts. Three hours classroom and two hours laboratory per week. *Open to Sophomores and above. Also open to Freshmen with permission of the Dean of Admission. 8 credit hours.*

# PHYSICS AND ASTRONOMY

*Professors Long and Yeagley*  
*Associate Professor Sia*  
*Assistant Professor Laws*  
*Mrs. Kendall*



The Department of Physics and Astronomy aims to develop in the student an understanding of the basic phenomena of the physical world and the ability to use rigorous quantitative methods in their description and organization. For the student with professional aims in science the Department offers courses leading to a strong major in Physics equipping the gifted student for entry into graduate school.

Students of biology, chemistry, geology, mathematics, and medicine will find the foundations offered by Physics 11-12, 19, and 66 of great value. Students who plan to major in Physics or who plan to participate in the five year engineering program are advised to take Physics 11-12 in their Freshman year, Physics 19 and 66 in their Sophomore year, and Physics 41-42 in their Junior year.

**11-12. ELEMENTS OF PHYSICS** Mechanics, heat, sound, light, electricity, magnetism. The nature of measurement, experimental verification, and methods of analysis in problem work and in laboratory reports. Three hours classroom and three hours laboratory per week. *Prerequisite: Mathematics 5-6, or concurrent registration therein.*  
**8 credit hours.**



**19. ATOMIC PHYSICS** Properties of the fundamental particles of matter, atomic structure and spectra, x-ray and electron diffraction, quantum physics, and the dual nature of matter and energy. Laboratory determination of the basic constants of matter and radiation. Two hours classroom and two hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11-12; Mathematics 15, 16, or concurrent registration therein. 3 credit hours.*

**21. WAVE MOTION—SOUND AND LIGHT** Properties of oscillating particles and propagation of waves in material media and vacuum. Reflection and refraction of waves at a boundary; interference, diffraction, and polarization of electromagnetic waves. Blackbody radiation and the limitations of classical physics. *Open to Sophomores and above. Not open to students who have credit for 43. Prerequisite: 11-12; Mathematics 15, 16, or concurrent registration therein. 3 credit hours.*

**23. ASTRONOMY** The universe as it pertains to laws governing sizes, distributions, and motions of celestial bodies. Methods and results of astronomical explorations of the solar system, milky way, and extragalactic systems. *Open to Sophomores and above. Prerequisite: One year of college mathematics. 3 credit hours.*

**41-42. ANALYTICAL MECHANICS** Geometry, kinematics, and dynamics. Vector algebra and calculus is used throughout. Topics include falling bodies, equilibrium of particles and of rigid bodies, centers of mass, moments and products of inertia, work and energy, power, simple and damped harmonic motion, forced vibrations, and wave motion. Students get practice and facility in developing mathematical formulae and in translating mathematical symbols into physical ideas. *Open to Juniors and Seniors. Not open to students who have credit for 25-26. Prerequisite: 11-12; Mathematics 15, 16. 6 credit hours.*

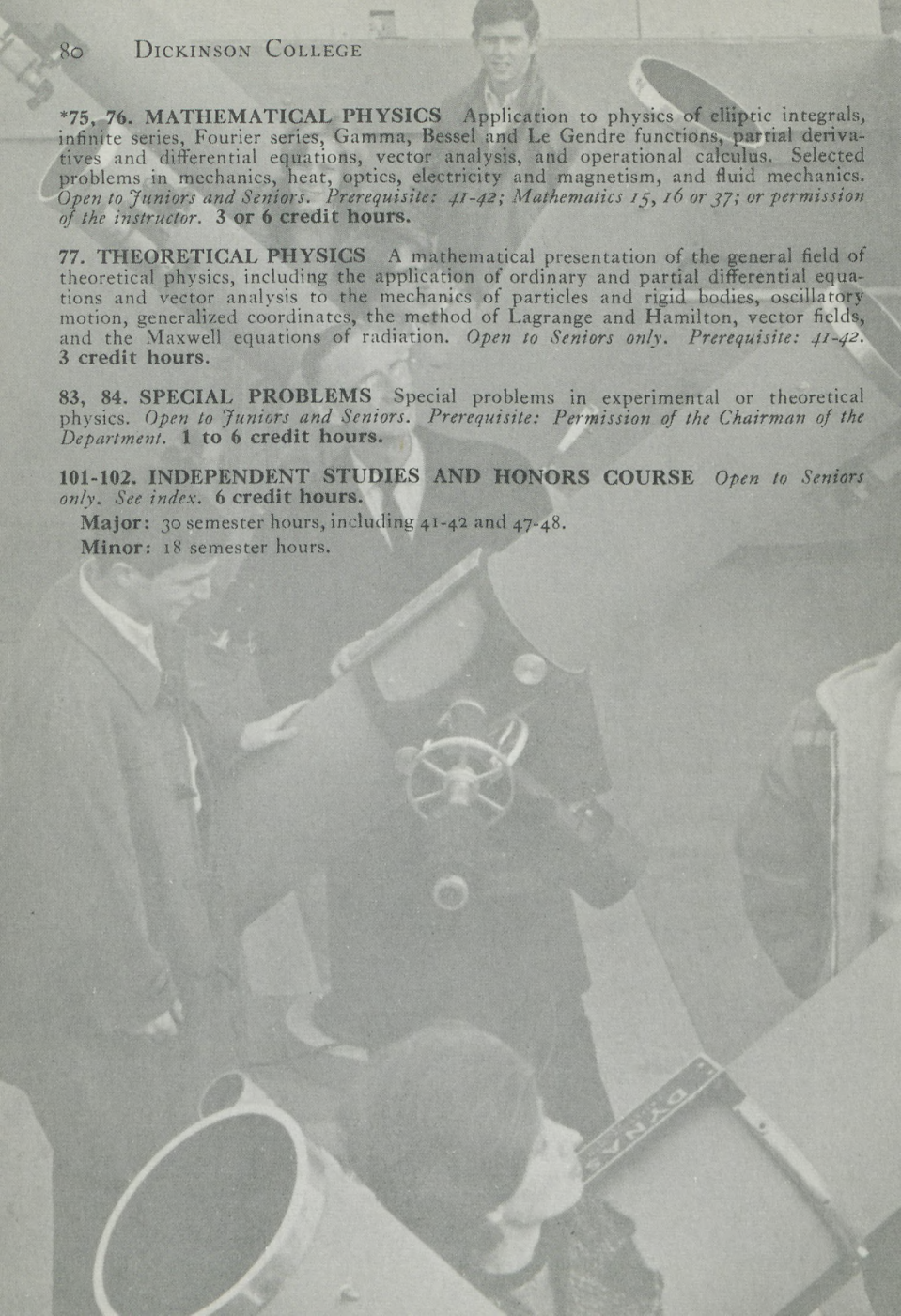
**\*47, 48. ELECTRICITY AND MAGNETISM** The fundamental principles of direct and alternating current theory; electrostatics, magnetostatics, and time varying fields; Maxwell's equations. Three hours classroom and three hours laboratory per week. *Open to Juniors and Seniors. Not open to students who have credit for 31-32. Prerequisite: 11-12; Mathematics 15, 16, and completion of, or concurrent registration in, Mathematics 37. 8 credit hours.*

**60. BIO-PHYSICS** *Prerequisite: Biology 11-12; Physics 11-12; and permission of the instructor. See Biology 60. 4 credit hours.*

**63. PHYSICAL MEASUREMENTS—OPTICS** Experiments in physical optics and spectroscopy. Experimental technique and interpretation of results is emphasized. One hour classroom and three hours laboratory per week. *Open to Juniors and Seniors. Not open to students who have credit for 44. Prerequisite: 21; Mathematics 15, 16. 2 credit hours.*

**66. NUCLEAR PHYSICS** Elementary particle theory, nuclear structure and decay, energy generation by fusion and fission; interaction of nuclear radiation with matter; radiation detectors and particle accelerators. Laboratory emphasis on experimental techniques in nuclear energy technology and research. Two hours classroom and three hours laboratory per week. *Open to Sophomores and above. Not open to students who have credit for 36. Prerequisite: 19; Mathematics 15, 16 or concurrent registration therein; or permission of the instructor. 3 credit hours.*

**\*67, 68. ELECTRONICS** Fundamental principles and applications of the emission and control of electrons. Radio frequency measurements, thermionic tubes, thermistors, transistors, resonant circuits, amplifiers, and oscillators. Three hours classroom and three hours laboratory each week. *Open to Juniors and Seniors. Prerequisite: 47 or concurrent registration therein; or permission of the instructor. 4 or 8 credit hours.*



**\*75, 76. MATHEMATICAL PHYSICS** Application to physics of elliptic integrals, infinite series, Fourier series, Gamma, Bessel and Le Gendre functions, partial derivatives and differential equations, vector analysis, and operational calculus. Selected problems in mechanics, heat, optics, electricity and magnetism, and fluid mechanics. *Open to Juniors and Seniors. Prerequisite: 41-42; Mathematics 15, 16 or 37; or permission of the instructor. 3 or 6 credit hours.*

**77. THEORETICAL PHYSICS** A mathematical presentation of the general field of theoretical physics, including the application of ordinary and partial differential equations and vector analysis to the mechanics of particles and rigid bodies, oscillatory motion, generalized coordinates, the method of Lagrange and Hamilton, vector fields, and the Maxwell equations of radiation. *Open to Seniors only. Prerequisite: 41-42. 3 credit hours.*

**83, 84. SPECIAL PROBLEMS** Special problems in experimental or theoretical physics. *Open to Juniors and Seniors. Prerequisite: Permission of the Chairman of the Department. 1 to 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 41-42 and 47-48.

**Minor:** 18 semester hours.



# POLITICAL SCIENCE

*Professor Flower*  
*Associate Professors Flaherty and Harper*  
*Assistant Professors Andrews and Nilsson*  
*Mr. Giglio*

It is the purpose of the Department of Political Science to give students an understanding of the political and administrative problems of government and to challenge their responsibilities as citizens. The approaches are both theoretical and practical; the areas are local, national, and international. Careful attention is given to preparation for graduate study. Most students with majors and minors in Political Science enter law, government, and international organizations. Whether or not these courses, oriented into a liberal arts curriculum, are to be used as specialized training, the emphasis in all the courses offered by the Department is upon the fundamental principles underlying enlightened citizenship.

**\*11, 12. INTRODUCTION TO POLITICAL SCIENCE** 11: An introduction to the discipline of political science: political theory, public law, comparative governments, political parties, and public administration. 12: An analysis of American Government structure and operation. *Open to Sophomores and above. Prospective majors must take both semesters. 3 or 6 credit hours.*

**30. THE CITY** Social, economic, and political aspects of control in contemporary city life. Case studies of several United States metropolitan communities provide course content, with emphasis on municipal methods for planning. Also named Sociology 30. *Open to Sophomores and above. 3 credit hours.*

**35. PUBLIC ADMINISTRATION** An analysis of the organization and functioning of the national bureaucracy in the light of the problem of executive responsibility in a democratic society. Special attention to administrative behavior, principles of organization and management, administrative federalism, the office of the Presidency, fiscal and personnel administration, and administrative lawmaking. *Open to Juniors and Seniors. Prerequisite: 11, 12. 3 credit hours.*

**36. EUROPEAN POLITICAL INSTITUTIONS** British and several continental European governmental systems (French and German) are studied as alternative forms of constitutionalism. *Open to Juniors and Seniors. Prerequisite: 11, 12, or permission of the instructor. 3 credit hours.*

**37. INTERNATIONAL RELATIONS** An examination of the basic factors affecting relations between states, such as economic, geographic and demographic; the evolution of international relations and the place of power politics in the modern world. *Open to Sophomores and above. 3 credit hours.*

**41. AMERICAN POLITICAL THOUGHT** The development of political ideas in America, stressing foreign influences on early Colonial thought and those influences indigenous to the growth of American Democracy. Colonial political ideas, the development of the Constitution, the Federalist Papers, State rights philosophy vs. centralized government, and contemporary interpretations. *Open to Juniors and Seniors. Prerequisite: 11, 12, or permission of the instructor. History 17, 18 is desirable. 3 credit hours.*

**43. STATE AND LOCAL GOVERNMENTS** A study and analysis of state and local governments with special emphasis on administrative problems. Group sessions are arranged with selected state and municipal officials. Attention will be given to pressures exerted on community leadership. *Open to Juniors and Seniors. Prerequisite: 11, 12. 3 credit hours.*

**\*45, 46. CONSTITUTIONAL LAW** An analysis of leading Supreme Court interpretations of the Constitution. Emphasis on concepts of judicial review, separation of powers, federalism, interstate commerce, obligation of contracts, due process, equal protection of the laws, and political and religious liberty. Introduction to legal research. *Open to Juniors and Seniors. Prerequisite: 11, 12. 3 or 6 credit hours.*

**47. POLITICS OF DEVELOPING AREAS** A comparative study of the process of modernization in selected non-Western nations. The viability of generalizations made about the process is tested against the experience of emerging nations in Southeast Asia, Latin-America and Africa. *Open to Sophomores and above. Prerequisite: 36. 3 credit hours.*

**48. ASIAN GOVERNMENTS AND POLITICS** Contemporary governmental and political systems of China and India in historical and philosophical perspective. Particular emphasis upon the revolution and communism in China, the development of democratic neutralism in India, and problems arising from the political, social, and economic reconstruction of the Far East. The interests of the United States, Great Britain, and the USSR in the Far East are examined. *Open to Sophomores and above. 3 credit hours.*

**50. POLITICAL SOCIOLOGY** *Open to Juniors and Seniors. See Sociology 50. 3 credit hours.*

**53. EVOLUTION OF POLITICAL THOUGHT** An analysis of the development of significant political ideas from the Greek City-State to the eighteenth century. Contributions to modern ideas and trends in government. *Open to Juniors and Seniors. 3 credit hours.*

**54. RECENT POLITICAL THOUGHT** Examination of significant political thought concerning the origin, nature, and functions of the State from the Age of Reason to the present. Socialism, fascism, and democracy. Emphasis on the conflict between democracy and authoritarianism. *Open to Juniors and Seniors. 3 credit hours.*



**55. POLITICAL BEHAVIOR** Cultural, social, and psychological factors which contribute to forms and directions of political behavior. Leading conceptual approaches, such as power, elites, and decision-making. Illustrated by voting studies, class surveys, and other indices of contemporary political trends. *Open to Juniors and Seniors. Prerequisite: 2 semesters of Political Science and 2 semesters of Psychology or Sociology, or permission of the instructor. 3 credit hours.*

**56. PUBLIC OPINION AND PROPAGANDA** The formation and control of public opinion in a democracy. Analysis of mass communication (press, radio, film, and TV); propaganda techniques; the causation of social attitudes; problems of public opinion polling. (Also named Sociology 56.) *Open to Juniors and Seniors. Prerequisite: 6 hours of Political Science or Sociology. 3 credit hours.*

**57. POLITICAL PARTIES** A study of the party system in the United States: strengths and weaknesses, functions and techniques, the electorate, government and political parties, political parties and pressure groups. *Open to Juniors and Seniors. Prerequisite: 11, 12. 3 credit hours.*

**60. MECHANICS OF AMERICAN FOREIGN POLICY** An analysis of the machinery through which foreign policy is formed and executed, including a topical study of courses of action open to the United States, non-entanglement, the Good-Neighbor policy, the Monroe Doctrine, the policy of the United States as a member of the United Nations, the policy of containment, and current problems. *Open to Juniors and Seniors. Prerequisite: 11, 12, or permission of the instructor. History 81 is strongly recommended. 3 credit hours.*

**64. INTERNATIONAL LAW AND ORGANIZATION** A study of the principles of law applied to the resolution of legal (as opposed to political) disputes between nations. International organization is studied as a complementary instrument. *Open to Juniors and Seniors. Prerequisite: 37. 3 credit hours.*

**66. THE POLITICS AND POLICIES OF THE SOVIET UNION** The recent institutional and theoretical development of the Soviet state. Special emphasis upon the principal ingredients of the Soviet monolith: Communist ideology, the Party, the Army, and the use of terror, bureaucracy, planned economy, and Communism, as a world movement. The purpose of the course is to provide a background for informed analysis and evaluation of the Soviet totalitarian challenge to American democratic values and institutions. *Open to Juniors and Seniors. 3 credit hours.*

**95, 96. SEMINAR** A research and conference course required of all Senior majors who are not taking 101-102. *Open to Seniors only. Prerequisite: Major in Political Science. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours. Required: Political Science 11, 12, and 95 or 96 or 101-102, and one course from each of the following groups:

Group 1: 30, 35, 43, 45, 46

Group 3: 41, 53, 54

Group 2: 37, 60, 64

Group 4: 36, 47, 48, 66

Group 5: 55, 56, 57

Remaining hours optional.

**Minor:** 18 semester hours, including Political Science 11, 12.

**Note:** Students who plan to make Political Science their major field of study should arrange to take Political Science 11, 12 in their Sophomore year.

# PSYCHOLOGY AND EDUCATION

*Professors James and Graffam*

*Visiting Professors Williams and Enders*

*Associate Professors Wanner, Hartman, and Coslett*

*Assistant Professors Gobrecht, Maurer, and Alexander*

## PSYCHOLOGY

The program in Psychology gives the student a sound foundation in psychological thought and an understanding of experimental and statistical evidence. Students planning to continue with graduate work in this field should schedule Psychology 11 in their Freshman year and consult with the Chairman of the Department concerning a sequence of recommended courses.

**11. INTRODUCTION TO PSYCHOLOGY** A survey of the various areas of psychological study designed to acquaint students with techniques of investigation, findings, and general viewpoints current in psychology. *This course is a prerequisite to all other courses offered in Psychology. 3 credit hours.*

**12. INTERMEDIATE GENERAL PSYCHOLOGY** A course designed to treat selected topics in general psychology with more detail and greater rigor than is possible in the introductory course. Emphasis is on consolidation of basic principles in preparation for more specialized courses. *Prerequisite: 11. 3 credit hours.*

**15. LEARNING** A review of the current theories of human and animal learning within a framework of relevant experimental research. *Open to Sophomores and above. Given occasionally. Not to be given 1964-65. Prerequisite: 21. 3 credit hours.*

**17. MOTIVATION** This course offers students an opportunity, through study, observation, and experimentation, to examine various theories of animal and human motivation. *Open to Sophomores and above. Prerequisite: 11. 3 credit hours.*

**21-22. EXPERIMENTAL PSYCHOLOGY** A systematic analysis of (1) scientific methodology as used in psychology, (2) the fundamental conditions and principles of learning, both animal and human, and (3) application of these principles to the problems of complex behavior. Two hours classroom and four hours laboratory per week. *Open to Sophomores and above. Prerequisite: 11. 8 credit hours.*



**23. PSYCHOLOGICAL EVALUATION** An introduction to mental measurements and the principles of psychological testing. Stresses individual differences and includes practice in test administration. *Open to Sophomores and above. Prerequisite: 11. 3 credit hours.*

**27. MENTAL HEALTH AND PERSONAL ADJUSTMENT** A course designed to acquaint the student with the principles of sound mental health as well as with the social and family nature of the mental health problem. *Open to Sophomores and above. Not open to Psychology majors. Given occasionally. Not to be given 1964-65. Prerequisite: 11. 3 credit hours.*

**31. EDUCATIONAL PSYCHOLOGY** An introduction to the psychology of learning for students interested in education. The attempt is made to develop a theory of learning and behavior in relation to the physical, social, and psychological development of the child and adolescent. The work of the classroom is supplemented by field study of pupil behavior in the public schools by means of team learning technique. *Open to Sophomores and above. Prerequisites: Psychology 11, Education 21. 3 credit hours.*

**33. PERSONALITY** A study of the origins, development, and measurement of personality through which students are acquainted with leading theoretical viewpoints and common constructs as well as those variables that are related to the dynamics, structure, and change of human personality. *Open to Juniors and Seniors. Prerequisite: 11. 3 credit hours.*

**\*37, 38. DEVELOPMENT PSYCHOLOGY** The principles of human development over man's life span. Emphasis is upon child and adolescent psychology. *Open to Sophomores and above. Prerequisite: 11. 3 or 6 credit hours.*

**39. PRINCIPLES OF COUNSELING** The theories and techniques of counseling with emphasis upon the interdependence of educational, vocational, and personal problems. *Open to Sophomores and above. Prerequisite: 11. 3 credit hours.*

**41. SOCIAL PSYCHOLOGY** The principles of psychology as they are related to the problems of society and the social behavior of individuals and groups. *Open to Juniors and Seniors. Prerequisite: 11. 3 credit hours.*

**49. INDUSTRIAL PSYCHOLOGY** Principles of psychology as applied in American industry to such problems as selection, efficiency, evaluation and morale. Some attention is given to industrial uses of psychological tests. Text, lectures, discussions, assigned readings, and field trips. *Open to Sophomores and above. Prerequisite: 11. 3 credit hours.*

**\*51, 52. HISTORY AND CURRENT THEORIES OF PSYCHOLOGY** An examination and critical evaluation of the history and content of selected current theories in psychology, especially the influence of various types of theory upon contemporary psychological research. *Open to Juniors and Seniors. Prerequisite: 11. 3 or 6 credit hours.*

**65. ABNORMAL PSYCHOLOGY** An introduction to the field of abnormal psychology designed for the advanced undergraduate. It provides valuable background for premedical students and those who contemplate graduate work in social and psychological service areas. Various mental illnesses are described fully and current techniques of diagnosis and treatment are discussed. *Open to Junior and Senior Psychology majors and premedical students. Prerequisite: 11. 3 credit hours.*

**72. JUNIOR SEMINAR IN ADVANCED EXPERIMENTAL DESIGN** A study of statistical procedures and mathematical models used in the design of and inference from behavioral research. *Prerequisites: 21-22; Mathematics 13, or 14. 3 credit hours.*

**\*81, 82. SENIOR SEMINAR** Readings, reports, and discussions will be employed in an examination of central problems of present-day psychology. *Open to Seniors only. Prerequisite: 11 and permission of the Chairman of the Department. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours in departmental course work. Psychology 11, 21-22, 23, and 81, 82 must be elected in order to receive departmental recommendation for graduate study. Certain courses in other departments may be applied toward the major field with prior written approval of the Chairman of the Department.

**Minor:** 18 credit hours in departmental course work.

## EDUCATION

The Department of Education offers undergraduate courses leading to the Provisional Secondary Teacher's Certificate in Pennsylvania and adjoining states. It is the purpose of the Education curriculum to prepare teachers within the enriching environment of a liberal arts college. It is anticipated that the student will take only the minimum of professional courses while concentrating most of his energies upon his academic growth. The Department has instituted a professional semester during which the student does his practice teaching on a full-time basis and completes twelve hours toward professional certification, thus combining a meaningful apprentice training with a liberal arts experience. A committee of faculty members acts upon the admission of candidates to this program.

A prospective student who plans to teach in the secondary schools should confer with the Chairman of the Department prior to matriculation. The Department does not offer specific preparation for certification on the elementary level. Certain courses offered at DICKINSON COLLEGE are accepted by certification bodies as meeting some of the requirements for the elementary certificate.

**21. SOCIAL FOUNDATIONS OF EDUCATION** Emphasis is on the role of the school in the social setting, the functions of schools in a changing society, community influences upon education, and the teacher's role in community and school. The historic development of the secondary school program in America is traced and compared with national systems of education in other countries. *Open to Sophomores and above. Also open to Freshmen with permission of the instructor. 3 credit hours.*

**31. EDUCATIONAL PSYCHOLOGY** *Open to Sophomores and above. See psychology. 3 credit hours.*

**33. EDUCATIONAL PRINCIPLES, CURRICULUM, AND SPECIAL METHODS** Instruction in the planning, organizing, and conducting of instructional activities; in the developing of effective class management procedures; and in the effective use of curricular materials, instructional media, and evaluative devices. A portion of the time is devoted to the specialized field in which certification is sought. *Prerequisite: 21, 31 and admission to professional semester. 3 credit hours.*



**35. HISTORY AND PHILOSOPHY OF EDUCATION** The role of education as a social agency in societies since the beginning of civilization. The ideas and pronouncements of the world's great thinkers, as they apply to the education process, are reviewed. *Prerequisite: 21. 3 credit hours.*

**51. VISUAL AND SENSORY TECHNIQUES** A study of the visual and sensory techniques currently used in classroom procedure. *Prerequisites: 21, 31 and admission to professional semester. 1 credit hour.*

**55. THE TEACHING OF READING IN SECONDARY SCHOOL SUBJECTS** An overview of the elementary reading program forms the basis for developing requisite knowledge and techniques for the improvement of reading competency of high school students in academic subjects. Emphasis is placed on readiness, comprehension, vocabulary development, and phonetic analysis, and on various methods of teaching oral and silent reading. Principles of reading development and problems of diversity of reading interest and ability are then given attention with respect to each student's field of concentration. *Prerequisites: 21, 31 and admission to professional semester. 2 credit hours.*

**61-62. SUPERVISED STUDENT TEACHING AND OBSERVATION** Observation and supervised student teaching is done at nearby cooperating public secondary schools in the student's area of specialization on a full time basis for eight weeks. This is under the direction of college and public school advisory personnel. Seminars in student teaching are conducted by the Director who handles assignment arrangements. Travel and personnel expenses incurred are the responsibility of the student. *Prerequisites: 21, 31 and admission to professional semester. There is a laboratory fee of \$35. 6 credit hours.*

**Minor:** 18 semester hours in departmental course work.

**Note:** This Department does not offer a major in Education. The student preparing to teach completes his major in another department of the College.

# PUBLIC SPEAKING

*Associate Professor Coutts\**

*Assistant Professor Brubaker*

The courses in Public Speaking are directed toward improvement in verbal communication and toward the development of greater self-assurance and ease in social and professional situations.

**21. ORAL INTERPRETATION** Training in the principles of effective oral reading through the use of the best in prose and poetry; development of the speaking voice; choral reading. *Open to Sophomores and above. 3 credit hours.*

**\*23, 24. ARGUMENTATION AND DEBATE** First semester: The theory and practice of persuasive speaking and debate. Second semester: The emphasis is on participation in classroom debates. *Offered occasionally. 3 or 6 credit hours.*

**33. PUBLIC SPEAKING** The theory of and practice in the fundamentals of public speaking. *Open to Juniors and Seniors. 2 credit hours.*

**51. ADVANCED PUBLIC SPEAKING** While this is a continuation of Public Speaking 33, increased attention is given to speech structure and to filling various specific speech situations. *Open to Juniors and Seniors. Offered occasionally. Prerequisite: 33. 2 credit hours.*



## RELIGION

SEE PHILOSOPHY AND RELIGION

## SOCIAL SCIENCE

*Associate Professors Flaherty, Harper, and Houston*  
*Assistant Professor Carson*  
*Mr. Perry, Mr. Heddendorf, and Mr. Giglio*

Interdepartmental offerings in the social sciences which include Economics, Political Science, Psychology, and Sociology.

**11-12. INTRODUCTION TO SOCIAL SCIENCE** Concepts basic to economics, political science, and sociology are developed. Culture, power, the market, social control, change, communication, and the techniques of social science are emphasized through class discussions, library, and field projects. **6 credit hours.**

# SOCIOLOGY AND ANTHROPOLOGY

*Assistant Professor Seaford  
Mr. Perry and Mr. Heddendorf*

By examining man in society, the student encounters himself. Instructed in the techniques of social inquiry, he learns to intelligently appreciate his own role in society. Moreover, awareness of the ways of life of other peoples furnishes him with the requisite perspective to see his native culture through eyes which acquire the acute perception of the foreign observer.

Offerings in this Department are basic to such professions as the ministry, foreign service, social work, teaching, law, and journalism. In addition, they afford essential background for other disciplines in the behavioral sciences.

**30. THE CITY** *Open to Sophomores and above. See Political Science 30. 3 credit hours.*

**32. PRINCIPLES OF SOCIOLOGY** An introduction to the primary concepts of sociology including culture, personality, groups, communities, social stratification, social institutions, processes of social interaction, population trends and human ecology, and the conditions and modes of social change. *Open to Sophomores and above. Also open to Freshmen with permission of the instructor. 3 credit hours.*

**33. GROUP DYNAMICS** Study of formal and informal groups with emphasis on group relevant motivations and social interaction. Demonstration of group processes. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. Prerequisite: 32 or Psychology 11. 3 credit hours.*

**34. CULTURAL ANTHROPOLOGY** A comparative treatment of various preliterate and modern cultures: their social organization, technology and ideology. Dynamics of cultural change. Approaches to the science of culture through linguistics and archaeology. *Open to Sophomores and above. Prerequisite: Social Science 11-12, or permission of the instructor. 3 credit hours.*

**35-36. INTRODUCTION TO SOCIAL WORK** Analysis of economic and socio-psychological factors relevant to the development of social work; the structure and function of social work and public welfare in contemporary society; examination of



outstanding theories and of methods of case work, group work, and community organization. *Open to Juniors and Seniors. Prerequisite: 32, or Psychology 11, or Social Science 12, with a grade of at least C. 4 credit hours.*

**35L, 36L. SUPERVISED FIELD WORK** Practical experience in serving agencies in Harrisburg, Carlisle, and vicinity. Students will work under the supervision of the instructor and of the agency supervisor. Four hours field work one afternoon a week. *Open to Juniors and Seniors. Prerequisite: 35, or concurrent registration in 35-36 and permission of the instructor. 1 or 2 credit hours.*

**37. PHYSICAL ANTHROPOLOGY** The course and mode of human evolution. Man's place among the vertebrates. Anatomy and behavior of primates. Races of man. Anthropometry and its contribution to modern technology. Evolution and religion. *Open to Sophomores and above. Prerequisite: Social Science 11-12, or permission of the instructor. 3 credit hours.*

**38. CULTURE AND PERSONALITY** The evolutionary emergence of personality. Man as a product of society. Personality developed in different cultures. *Open to Sophomores and above. Prerequisite: 32 or 34, or permission of the instructor. 3 credit hours.*

**47. CRIMINOLOGY** The nature, causation, and treatment of delinquency and crime. Examination of case histories and statistical studies. Consideration of proposals for the prevention of crime and the improvement of penal procedures. Field trips. *Open to Juniors and Seniors. Prerequisite: Social Science 11-12, or permission of the instructor. 3 credit hours.*

**50. POLITICAL SOCIOLOGY** Social forces affecting the origin of the State and divergent lines of political development. Comparison between democracy and other political systems in respect to quality of participation, the development of personality, social control, social change, and the politico-economic institutional complex. The State in international relations. (Also named Political Science 50.) *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 32. 3 credit hours.*

**56. PUBLIC OPINION AND PROPAGANDA** The formation and control of public opinion in a democracy. Analysis of mass communication (film, press, radio, and television); propaganda techniques; the causation of social attitudes; problems of public opinion polling. (Also named Political Science 56.) *Open to Juniors and Seniors. Prerequisite: 6 hours of Sociology or Political Science. 3 credit hours.*

**60. RACE AND CULTURE** Race, its biological and cultural interpretations. Fallacies of racism. Case studies of race and culture contacts. Prejudice and discrimination. **3 credit hours.**

**62. METHODS OF SOCIAL RESEARCH** The study and application of basic methods of social research. Interviewing techniques, participant observation, sampling techniques, the experimental method, and the use of the schedule and questionnaire in the study of social attitudes. *Open to Juniors and Seniors. Prerequisite: 32 or permission of the instructor. 3 credit hours.*

**63. THE FAMILY** A sociological analysis of the family, comparing family customs of preliterate with modern societies; recent changes in the American family; socialization and personality development of the members of the family, problems of family organization. *Open to Juniors and Seniors. Prerequisite: Social Science 11-12, or permission of the instructor. 3 credit hours.*

**65. PEOPLES AND CULTURES OF THE SOVIET UNION** The major social institutions of the USSR, as conditioned by Russian traditions, ideology, and political power. Ethnic minorities and their cultures. The individual and the state, social stratification, and cultural change. *Open to Sophomores and above. Prerequisite: Social Science 11-12, or permission of the instructor. 3 credit hours.*

**67, 69. COMPARATIVE CULTURES: Asia** Archaeology and ethnology of cultures of Asia. Rise and diffusion of early civilizations. Subsistence patterns, social organization, religion, values. Semester I: China, Japan, and Korea. Semester II: India and Southeast Asia. *Open to Sophomores and above. Prerequisite: 32, 34, or 60, or permission of the instructor. 3 or 6 credit hours.*

**68. COMPARATIVE CULTURES: Africa** Comparison of major cultures of Africa. The impact of Islam and western colonialism upon native cultures. Emphasis upon fundamental values, land systems, village life, urbanization, the family, social stratification, social control, and dominant personality traits. Problems resulting from social and cultural change. *Open to Sophomores and above. Prerequisite: 32, 34, or 60, or permission of the instructor. 3 credit hours.*

**74. COMPARATIVE CULTURES: Latin America** Archeology and ethnology of Middle and South America. Rise of civilization. Subsistence patterns, social organization, religion, values, sociocultural change. The contemporary scene. *Open to Sophomores and above. Prerequisite: 32, or 34, or permission of the instructor. Not open to students with credit for 73. 3 credit hours.*

**75. SOCIOLOGY OF EDUCATION** An analysis of contemporary American education within a sociological framework. A practical approach to problems in the public school environment. Student and teacher roles, classroom dynamics, the school and the larger community. *Open to Juniors and Seniors. Given in alternate years. To be given 1965-66. Prerequisite: 32 or Education 21. 3 credit hours.*

**76. SOCIOLOGY OF RELIGION** A functional study of religion and its relation to society. A definition of religion, comparative religions, primitive religion, social functions, and institutionalization of religious groups. Organizational and cultural changes in religion. *Open to Sophomores and above. Given in alternate years. To be given 1964-65. Prerequisite: 32, or permission of the instructor. 3 credit hours.*

**77, 78. COMPARATIVE SOCIAL THEORY** A systematic analysis of the outstanding theories of social structure, social dynamics, and social change. Contributions of the major theorists are explored in depth. Semester I: Social thought in Asia, and in Europe before Comte. Semester II: Modern sociological theories. *Open to Juniors and Seniors. 78 is not open to students with credit for 71. Prerequisite: 6 hours in Sociology, including 32. 3 or 6 credit hours.*

**101-102. INDEPENDENT STUDIES AND HONORS COURSE** *Open to Seniors only. See index. 6 credit hours.*

**Major:** 30 semester hours, including 32, 34, 62, 78, and either 65, 67, 68, or 74. In addition, Mathematics 13 or 14 or 23-24 is required. Six of the 30 semester hours may be taken from the following courses: Economics 53, 76, and 78; English 37, 38, and 61, 62; History 49, 50, 56, 57, and 58; Philosophy 33, 34, 39, and 41, 42; Religion 28; Political Science 48, 51, 53, and 54; Psychology 33 and 41.

**Minor:** 18 semester hours, including 32 and at least one of the following courses: 34, 50, 62, 67, 68, or 78.



# Endowed and Named Chairs

THE College has a number of endowed and named chairs. The holders of these chairs are elected by the Board of Trustees and the chairs which they hold are indicated in the faculty list. The endowed chairs are as follows:

THE LEMUEL T. APPOLD FOUNDATION, endowing the chair of the President of the College, was established by the Board of Trustees from a part of the bequest of Lemuel T. Appold of Baltimore, Maryland, of the Class of 1882 and a generous benefactor of the College.

THE ROBERT COLEMAN CHAIR OF HISTORY. The bequest of Robert Coleman, Esq., of Lancaster, Pennsylvania, was designated by the Board of Trustees in 1828 for the endowment of a professorship, making this one of the oldest American professorships.

THE THOMAS BEAVER CHAIR OF ENGLISH LITERATURE was endowed by Thomas Beaver, Esq., of Danville, Pennsylvania in 1889.

THE SUSAN POWERS HOFFMAN CHAIR OF MATHEMATICS was endowed in 1923 and named in memory of Susan Powers Hoffman of Carlisle.

THE ASBURY J. CLARKE CHAIR OF LATIN was established in 1919 by the gift of the widow of Asbury J. Clarke, of the Class of 1863.

THE RICHARD V. C. WATKINS CHAIR OF PSYCHOLOGY was endowed in 1928 by the bequest of Richard V. C. Watkins, of the Class of 1912.

THE MARTHA PORTER SELLERS CHAIR OF RHETORIC AND THE ENGLISH LANGUAGE is an endowed professorship established in 1936 by a gift of her son, the late Professor Montgomery Porter Sellers, of the Class of 1893.

THE BOYD LEE SPAHR CHAIR OF AMERICAN HISTORY was endowed in 1949 by the gift of Boyd Lee Spahr, of the Class of 1900.

THE GEORGE HENRY KETTERER AND BERTHA CURRY KETTERER CHAIR OF RELIGION was endowed in 1949 by the gifts of George Henry Ketterer, of the Class of 1908, and his wife, Bertha Curry Ketterer.

THE ROBERT BLAINE WEAVER CHAIR OF POLITICAL SCIENCE was endowed by the bequest of Laura Davidson Weaver, and named for her brother, Robert Blaine Weaver, of the Class of 1874.

THE C. SCOTT ALTHOUSE CHAIR OF CHEMISTRY was established in 1950 and named for C. Scott Althouse, a trustee of the College.

THE ALFRED VICTOR DUPONT CHAIR OF CHEMISTRY, named for Alfred Victor duPont, a student at the College, 1814-16, was established in 1950 by the gift of his grandson, the late Irénée duPont, of Wilmington, Delaware.

THE THOMAS BOWMAN CHAIR OF RELIGION was endowed in 1951 by the gift of the Kresge Foundation (Sebastian S. Kresge, L.H.D., Founder), and named for Thomas Bowman of the Class of 1837, the first graduate of Dickinson College to be elected a Bishop of the Methodist Episcopal Church.

THE HENRY FORD CHAIR OF EDUCATION was established in 1956 and named for Henry Ford in recognition of the Ford Foundation's selection of Dickinson College in 1954 for the Accomplishment Award for improving the salary and status of the Faculty.

THE EDSSEL FORD CHAIR OF ECONOMICS was established in 1956 and named for Edsel Ford in recognition of the educational statesmanship of the Ford Foundation in its 1954 gifts to privately supported colleges.

THE JOSEPH PRIESTLEY CHAIR OF NATURAL PHILOSOPHY was established in 1959 by gifts of William H. Baker and S. Walter Stauffer in memory of Salome Baker Stauffer.

THE WILLIAM W. EDEL CHAIR IN THE HUMANITIES was endowed in 1959 by the gift of Merle W. Allen, a college trustee, and his wife, Elizabeth Frederick Allen, "in recognition and commemoration of Dr. Edel's outstanding leadership as President of the College from 1946-1959."

A number of other chairs are partially endowed.





# Honor Scholarships and Prizes

## FOR GENERAL EXCELLENCE IN SCHOLARSHIP

**SOPHISTERS** By action of the Board of Trustees, and in keeping with an old Dickinson tradition, the highest-ranking junior is named Senior Sophister for his final year in College, while the highest-ranking sophomore is named Junior Sophister for the following year. The distinction of Senior and Junior Sophisters carries with it a full-tuition scholarship.

**THE JAMES FOWLER RUSLING PRIZE** of \$100, the income augmented from the \$1,000 gift of General James Fowler Rusling, LL.D., Class of 1854, is awarded to that student of the Senior Class who, at the end of a four-year course, shall be found to excel in scholarship and character.

**THE WILLIAM K. DARE HONOR SCHOLARSHIP**, in memory of William K. Dare, Class of '83, Professor of Education and Psychology, 1893-99, is awarded annually to that male student of the Freshman, Sophomore, or Junior Class who has attained the highest scholastic average in the work of the previous year. For this purpose the late Lemuel T. Appold, Esq., Class of '82, the lifelong friend of Professor Dare, gave the College a capital fund of \$5,000. The scholarship, consisting of \$250, is awarded at commencement time, and is credited to the recipient on tuition the following year.

**THE HUFSTADER SENIOR PRIZES**, two prizes of \$200 each, one for the senior man student and the other for the senior woman student who, in the judgment of the President of the College, have contributed most to the good of the College during the entire four years. These prizes are endowed by a gift from Dr. William F. Hufstader.

**THE DELAPLAINE MCDANIEL PRIZES.** \$5,000 was given by the late Delaplaine McDaniell, of Philadelphia, as a scholarship fund providing three prizes offered annually to two members of the Freshman Class and to one member of the Sophomore Class for excellence in scholarship.

**THE JOHN PATTON MEMORIAL PRIZES**, four in number, of \$25 each, one for each of the college classes, established by the \$2,000 gift of the late Honorable A. E. Patton of Curwensville, as a memorial to his father, Gen. John Patton, for many years a trustee of the College, are awarded annually for high scholastic standing.

## FOR EXCELLENCE IN SPECIAL FIELDS

**THE RUTH SELLERS MAXWELL SCHOLARSHIPS** in English Literature, established in 1945 by the \$5,000 gift of Robert H. Maxwell, of the Class of 1915, in memory of his wife, Ruth Sellers Maxwell, of the Class of 1915, who for many years was a teacher of English Literature, to be awarded annually for excellence in scholarship, for the highest scholastic standing in any course in English literature.

**THE WILLIAM LENNOX AVIS PRIZE IN UNITED STATES HISTORY** of \$25, the income from a fund of \$450, the bequest of Minnie Woods Avis.

THE HENRY P. CANNON MEMORIAL PRIZE, income of a fund of \$500 voted by the Trustees in 1932 in honor of Henry P. Cannon, Class of '70, to continue the award given by him for many years "to that member of the Sophomore Class who shall pass the most satisfactory examination in the Mathematics of the Sophomore year, together with the original Geometry of the Freshman year."

THE MERVIN GRANT FILLER MEMORIAL PRIZE of \$50, the income from a \$1,000 bequest of Tolbert J. Scholl, of Mechanicsburg, Pa., in memory of Dr. Mervin G. Filler, President of the College, 1928-31, to be awarded annually at Commencement to a student of the College for excellence in the study of the classical languages.

THE CHI OMEGA PRIZE of \$25, the gift of the Dickinson chapter, is an award made to that junior or senior woman who excels in Economics, Political Science, Sociology, or Psychology.

THE CLASS OF 1902 AWARD A gold watch made possible by a gift of \$2,500 from the Class of 1902, and awarded annually to that member of the Junior Class who, by the vote of his classmates, shall be adjudged the most all-around Dickinsonian. Established in June, 1927.

THE JOSEPH MIDDLETON AND ISABEL MULLIN BURNS MEMORIAL PRIZE of \$50, the annual income from \$1,000, the contribution of their daughter, Mrs. Helen Burns Norcross, Class of 1912 and former Dean of Women. This award is to be given annually to the woman student who attains the highest scholastic average during the Sophomore year.

THE C. W. FINK MEMORIAL ECONOMICS PRIZE of \$25, the income from a fund of \$580 established in 1961, is awarded annually to a student for excellence in Economics.

THE CHARLES MORTIMER GIFFIN PRIZE IN ENGLISH BIBLE of \$25, the income of a fund of \$500, is awarded annually to a student of the Senior Class of English Bible.

THE FORREST E. CRAVER MEMORIAL MATHEMATICS PRIZE of \$50, the income from a fund of \$1,000 established in 1963, to be awarded annually to a student of the Junior class for excellence in Mathematics.

THE WILLIAM W. LANDIS MEMORIAL PRIZE IN MATHEMATICS of \$50, the income from a fund of \$1,000 given by his cousin, George G. Landis, of the Class of 1920, in memory of Dr. William W. Landis, Professor of Mathematics from 1895 to 1942, to be awarded for excellence in the mathematics of the Freshman year.

THE ALICE AND F. CHAPLINE MOOREHEAD AWARD of \$50, the income of a fund of \$1,000, to be awarded to that member of the Sophomore Class who has shown the most improvement in overall scholastic achievement during his or her Sophomore year. This award has been presented by Caroline Moorehead Elder in loving memory of her parents.

THE WILBUR HARRINGTON AND HELEN BURNS NORCROSS PRIZE of \$50 created in the will of Helen Burns Norcross, former Dean of Women, the annual income from a fund of \$1,000, in memory of her husband, Professor Wilbur Harrington Norcross, head of the Psychology Department from 1916 to 1941, to be awarded for excellence in Psychology during the Junior year.

THE WELLINGTON A. PARLIN SCIENCE SCHOLARSHIP AWARD of \$100, the income from a fund given to the College by Dr. Wellington A. Parlin, Professor Emeritus of Physics, awarded annually to that junior majoring in Biology, Chemistry, or Physics, who has, during the three years at Dickinson College, attained the highest general scholastic average, and is applied to his college account for his Senior year. If in any



year the student to whom the award is made does not return as a student for the following year, the amount granted him shall then be used by the College for general college purposes.

THE GAYLARD H. PATTERSON MEMORIAL PRIZE of \$25, the income of a fund of \$500, a memorial to Professor Gaylard H. Patterson, the founder of the Social Science Department in the College, to be awarded to that student in Sociology who presents the best sociological analysis of a public policy. The judges of the essay are to be members of the Division of Social Science.

THE MORRIS W. PRINCE HISTORY PRIZE of \$25, the income of a fund of \$455, the gift of the Class of 1899, for excellence in History.

THE WINFIELD DAVIDSON WALKLEY PRIZES of \$25 and \$15, the income of a fund amounting to \$993.16, endowed by D. R. Walkley, D.C.L., in memory of his son, Winfield Davidson Walkley, are awarded as first and second prizes, respectively, to those members of the Freshman Class who shall excel in declamation, either forensic or dramatic.

ANGELINE BLAKE WOMER MEMORIAL PRIZE of \$75, the income of a fund of \$1,500, to be awarded each year to that student of the Freshman Class who attains the highest grade in rhetoric and composition.

THE GOULD MEMORIAL DRAMA PRIZES, two permanent trophies, value \$1,200, donated by Dr. Herbert M. Gould, in memory of his father, William H. G. Gould, and mother, Myrtle Drum Gould, to be retained by the College, but engraved each year with the name of the man student and woman student who, in the judgment of the President of the College, have made the greatest contribution to the program of dramatic productions of the College.

THE AGNES STERRETT WOODS PRIZE of \$50, to be paid yearly to a woman student for the best short story or best essay.

## Presidential Scholarships

By action of the Trustees of the College eight Presidential Full Tuition Scholarships were established in commemoration of the Tenth Anniversary of the Inauguration of President Emeritus William Wilcox Edell. Four of these scholarships are at large, two are assigned to Carlisle, one to Harrisburg and one to Baltimore. Normally two Presidential Scholarships will be awarded each year. Scholarships once awarded will be renewed each year provided the recipient maintains satisfactory character and scholarship.

# Scholarships and Student Aid

The College provides several types of assistance for worthy students in financial need. A number of special loans and scholarship funds have been established over the years by friends of the College, awards from which are made by the donors or by the President on the basis of merit and need. Supplementing these funds, the College annually sets aside from its budget a sum to be used for the several forms of student aid described below.

SCHOLARSHIP AWARDS are made to certain outstanding students with due consideration given to need. Dickinson utilizes the College Scholarship Service sponsored by the College Entrance Examination Board. On the regular application form, the applicant indicates an interest in scholarship assistance. The appropriate forms are available from the student's secondary school. Final decisions on requests for assistance are made by the Scholarship and Student Aid Committee of the College.

GRANTS-IN-AID are available to students who offer high promise of usefulness but who have not achieved scholastic distinction. Such awards are restricted to those who cannot meet the full expense of their college program through incidental employment without serious detriment to their academic work.

STUDENT LOANS are available under the terms of Title II of the National Defense Education Act of 1958 (Public Law 85-864) as well as from the college funds listed on pages 105-106.

Financial assistance is normally awarded for the full academic year. The College reserves the right, however, to review individual cases at any time. Normally financial aid is not continued to students on probation. Students who have received financial aid may count upon its renewal, though not necessarily in the same amount or category, subject to the following conditions:

1. The attainment of a satisfactory scholastic record;
2. The maintenance of a high standard of conduct;
3. The continued existence of financial need; and
4. The exercise of strict economy.

*All students, except as noted, desiring renewal of financial aid must make application on the "Application for Renewal of Financial Aid" form by February 15. Students whose economic circumstances have changed significantly (over \$500) since the initial award to them of financial assistance by the College must use the form provided by the College Scholarship Service in applying for renewal. Complete information concerning these several types of financial assistance, including all necessary forms, can be obtained from the Office of the Dean of Men or Women.*



## FOUNDATION SCHOLARSHIPS

NATIONAL METHODIST SCHOLARSHIPS are available to a number of students. These scholarships are based on recommendation from the pastor of the student's home church, interest and experience in Methodist activities, and high scholarship. Applications for these scholarships should be made to the President's Office of the College.

THE PITCAIRN-CRABBE FOUNDATION of Pittsburgh, Pennsylvania, has made available a scholarship of \$700 to be awarded annually by the President of the College on the basis of need and promise, to students who are the sons or daughters of clergymen, teachers, public servants, or other persons who are engaged in serving the public welfare.

THE GENERAL MOTORS CORPORATION has made available one four-year scholarship for a student in each entering class. The value of these scholarships depends on the need of the students selected, not to exceed \$2,000 per year. Scholarships will be awarded on a competitive basis and application for them should be made to the Dean of Admissions.

## ENDOWED SCHOLARSHIPS

THE BALDWIN MEMORIAL CHURCH SCHOLARSHIP FUND of \$1,000, established in 1917.

THE M. GRACE BECHTEL MEMORIAL, the interest on a \$1,000 endowment to be paid annually to that student of the College who is preparing for entrance into the Christian ministry of the Central Pennsylvania Conference of The Methodist Church.

THE BODINE SCHOLARSHIP of \$50, established in 1907 by the \$1,000 gift of George I. Bodine, Jr., Esq.

THE GEORGE L. BROWN FUND, established under the will of the late George L. Brown, M.D., of Lucknow, Pa., amounting to \$22,500, provides that the income be applied to the tuition in order of preference, first, of male students from Middle Paxton Township, Dauphin County, Pa.; secondly, of male students from Susquehanna Township, Dauphin County, Pa.; and lastly, of other worthy and eligible boys.

CENTRAL PENNSYLVANIA METHODIST CONFERENCE SCHOLARSHIP FUND, the income to be used as scholarships for members of churches of the Central Pennsylvania Methodist Conference.

THE CLASS OF 1910 MEMORIAL FUND, established by the Class of 1910 on June 30, 1960, the sum of \$7,826. The income from this fund is to be used for such college purposes as the President of the College shall consider to be of the greatest need, with preference first to the Library and then to scholarship grants.

THE CLASS OF 1914 SCHOLARSHIP, the interest on an accumulating fund which was presented to the College on the twenty-fifth reunion of the class, and on June 30, 1950, amounted to \$4,100, available in the form of scholarship aid to students, by appointment of the President of the College.

THE CLASS OF 1915 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 3, 1945, amounting to \$5,400 available in the form of scholarship aid to students by appointment of the President of the College, preference to be given to any descendant of a member of the Class of 1915.

THE CLASS OF 1917 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 7, 1947, amounting to \$3,000, to be awarded annually by the President of the College, preference to be given to any descendant of the Class of 1917.

THE CLASS OF 1918 SCHOLARSHIP, the interest on a fund presented to the College on the thirtieth reunion of the class on June 5, 1948, amounting to \$3,130 to be awarded annually by the President of the College, preference to be given to any descendant of the Class of 1918, and when unassigned, to be used for the operating costs of the College.

THE CLASS OF 1921 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class on June 8, 1946, amounting to \$2,350, to be awarded by the President of the College, preference to be given to any descendant of the Class of 1921.

THE CLASS OF 1922 MEMORIAL FUND, the interest on a fund presented to the College on the twenty-fifth reunion of the class on June 7, 1947, amounting to \$1,208, the income to be used for such college purposes as the President of the College shall consider to be the greatest need with preference first to the Library and then to scholarship grants.

THE CLASS OF 1928 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class in June, 1953, amounting to \$7,672, to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1928, and when unassigned to be used for such college purposes as the President of the College shall consider to be the greatest need.

THE CLASS OF 1930 SCHOLARSHIP, the interest on a fund presented to the College on the twenty-fifth reunion of the class in June 1955, amounting to \$4,280, to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1930.

THE CLASS OF 1935 RED MALCOLM SCHOLARSHIP FUND, amounting to \$16,250. The interest to be awarded annually by the President of the College, preference to be given to any needy descendant of the Class of 1935.

THE CLASS OF 1938 SCHOLARSHIP, amounting to \$3,500, and to be administered by the President of the College.

THE CLASS OF 1960 DR. GILBERT MALCOLM SCHOLARSHIP FUND of \$2,700.

THE JOSEPH AND MARY STRONG CLEMENS SCHOLARSHIP FUND of \$2,500 was established in 1934 by Joseph Clemens, Class of 1894, the income therefrom to be used as scholarship or scholarship-loan aid for the benefit of students of the College who are students for the ministry of The Methodist Church to be selected by the President of the College as needy and worthy.

CARRIE A. W. COBB SCHOLARSHIP FUND of \$5,000, in memory of the Reverend Charles H. Rorer, D.D., because of his abiding interest in the College, his Alma Mater, the income of which is to be awarded by the College to aid students preparing for the ministry.

THE ELEANOR COOPER SCHOLARSHIP FUND of \$5,000, established in 1952. The Dickinson Club of New York may from time to time nominate recipients of such scholarship.

THE CORSON SCHOLARSHIP FUND of \$8,580, in honor of Bishop Fred P. Corson and Frances B. Corson, established by the Wyoming Conference of The Methodist Church. The amount of each scholarship to be limited to \$500 annually from this fund. Every candidate shall be a member of one of the churches of the Wyoming Conference.

THE MR. AND MRS. ROBERT B. DAVIES SCHOLARSHIP FUND of \$14,500, established in January, 1962, the income to be used toward the payment of the tuition of any students from Schuylkill County, Pennsylvania, of the Methodist faith, who are attending Dickinson College.



THE NATHAN DODSON CORTRIGHT MEMORIAL SCHOLARSHIP FUND of \$5,000 established by Mrs. Emma L. Keen, of Philadelphia, as a memorial to her father, Nathan Dodson Cortright, is used to aid young men preparing for the ministry.

S. ADELBERT DeLUDE SCHOLARSHIP of \$250, established in 1956 by a \$5,600 grant from his estate. In awarding this scholarship preference is given to a student from the New York area.

THE LUCY HOLT DONEY MEMORIAL SCHOLARSHIP FUND of \$1,000, established in 1959 by Jean, Hugh, and John Doney, the income to be used for a worthy and needy student.

THE SMITH ELY SCHOLARSHIP, endowed in 1910 by the Honorable Smith Ely, of New York City, in the sum of \$1,100, students from New York City and vicinity having prior claim.

THE WILLIAM SCHUYLER EVES MEMORIAL SCHOLARSHIP FUND of \$12,000 established in 1956, the annual income to be used for the education of needy and worthy young men who are members of the Jenkintown Methodist Church, Jenkintown, Pennsylvania. The young men to be selected by the President of Dickinson College and the Minister of the Jenkintown Methodist Church. Any earnings accruing in excess of the needs of the students from the Jenkintown Methodist Church may be used, upon prior approval of the Minister of the Jenkintown Methodist Church, for the benefit of any young man preparing for the ministry.

THE FARMERS TRUST COMPANY SCHOLARSHIP FUND of \$4,000, established in 1961 by the gift of the Farmers Trust Company, Carlisle, Pennsylvania. The income of the Fund available in the form of Scholarship Aid, by appointment of the President of the College, preference to be given to the son or daughter of an employee of the bank.

THE ROBERT M. FERGUSON, JR. MEMORIAL SCHOLARSHIP FUND of \$2,000, the gift of Grace C. Vale, of the Class of 1900.

THE FREEMAN SCHOLARSHIP of \$50, established by the \$1,000 gift of Frank A. Freeman, Esq., of Philadelphia.

THE MELVILLE GAMBRILL MEMORIAL FUND of \$50,000, the gift of Melville Gambrill, of Wilmington, Delaware, a former trustee of the College, the income from which is used to provide education for young men preparing for the ministry.

THE JOHN GILLESPIE MEMORIAL SCHOLARSHIP, interest on \$1,000, the gift in 1911 of Miss Kate S. Gillespie, daughter of John Gillespie, Esq., of Philadelphia, as a memorial to her father.

THE M. BRANDT GOODYEAR SCHOLARSHIP, established in 1961, the income from \$2,000.

THE EDNA GRACE GOODYEAR MEMORIAL FUND of \$5,000, established by the late Samuel M. Goodyear, for many years a trustee of the College, the income therefrom to be awarded annually by the President of the College to a needy and worthy student, first, of students from Carlisle, Pennsylvania; secondly, of students from Cumberland County; and lastly, of other worthy and eligible students.

THE JOHN H. HACKENBERG SCHOLARSHIP was endowed in 1940 by the gift of \$2,000 by the Reverend John H. Hackenberg, D.D. and his wife, the interest to go annually to help some worthy young man preparing for the Methodist ministry.

THE HAVERSTICK AND SNAVELY SCHOLARSHIP, income from an annuity fund of \$1,000 set up in 1910 and designated for endowment of a scholarship.

THE J. FRED HEISSE SCHOLARSHIP FUND of \$2,500 was established in 1925 by his brother, E. W. Heisse, of Baltimore. The proceeds of the fund are awarded from year to year to such student or students as may be named by the donor, or on his failure to nominate, by the President of the College.

THE HONORABLE E. FOSTER HELLER SCHOLARSHIP FUND of \$5,000, established by Anna C. Halsey, the income to be given each year, at the discretion of the President of the College, to such boy or boys of scholastic attainment and of good character who need help for the successful continuance of their course in College.

THE HORN SCHOLARSHIP, income from \$1,000, contributed in 1917 by J. Edward Horn, of Phillipsburg, Pa., to be awarded to some worthy student of the College preparing for useful service.

THE BRUCE HUGHES SCHOLARSHIP, established in 1917, the income from \$950.

THE WILLIAM ALBERT HUTCHISON SCHOLARSHIPS, the income from a fund of \$3,175, presented to the College by the Conway Hall Alumni Association on June 7, 1947, in memory of Dr. William A. Hutchison, Headmaster of Conway Hall Preparatory School, to be awarded by the President of the College, preference to be given to descendants of former students of Conway Hall.

THE CHARLES H. B. KENNEDY MEMORIAL SCHOLARSHIP FUND, the income from \$1,000, given by members of the "D" Club in memory of Professor Charles H. B. Kennedy.

THE MERKEL LANDIS SCHOLARSHIP FUND of \$7,000, established in 1958. The income to be awarded annually by the President of the College to a needy and worthy student, first, of students from Carlisle, Pennsylvania; secondly, of students from Cumberland County; and lastly, of other worthy and eligible students.

THE ALBANUS CHARLES LOGAN MEMORIAL SCHOLARSHIP FUND of \$7,416, the gift of Maria Dickinson Logan, of Philadelphia, the income to be used as a scholarship at the College for some worthy young man, preference being given to a graduate of the Germantown High School.

THE HENRY LOGAN SCHOLARSHIP FUND of \$12,500, the gift of Henry Logan, of the Class of 1910, of Brooklyn, N. Y., the income therefrom to be awarded annually by the President of the College to a needy and worthy student upon the recommendation of the donor during his lifetime.

THE JOHN B. LUCAS SCHOLARSHIP FUND of \$6,925, the income thereof to be used for scholarships to assist a Wilmington boy or girl who needs the income to assure a first year college education, first preference to be given to the child of an employee of the Pennsylvania Railroad Co. or an employee of the Atlas Powder Co.

THE RICHARD H. McANDREWS SCHOLARSHIP, the income from a fund of \$1,100 presented to the College on June 7, 1947, by the Wearers of the "D" to create a memorial to Associate Professor Emeritus R. H. McAndrews of the Department of Physical Education, to be awarded annually by the President of the College.

THE CHARLES WATSON MCKEEHAN SCHOLARSHIP FUND of \$8,425.11, established under the wills of Mary A. McKeehan and Charles L. McKeehan in memory of their husband and father, Charles Watson McKeehan, of the Class of 1867, a trustee of the College 1879-95.

C. H. MASLAND & SONS SCHOLARSHIPS, established in 1945 by the \$20,000 gift of C. H. Masland & Sons, manufacturers, of Carlisle, Pa., awarded annually with preference given to children of employees of C. H. Masland & Sons, then to residents of Carlisle or adjacent territory, and lastly to any other needy and worthy student.



THE BESSIE McCULLOUGH MEMORIAL SCHOLARSHIP FUND, CLASS OF 1911, of \$12,000. established in 1959, the income to be used for worthy and needy students.

THE ARTHUR MILBY SCHOLARSHIP of \$50, established in 1911 by the \$1,000 gift of Miss Mary R. Burton, for the education of worthy young men for the ministry.

THE THEODORE F. MILLER SCHOLARSHIP of \$50, the income from the \$1,000 gift of Theodore F. Miller, Esq., of Philadelphia in 1928.

THE ROY W. MOHLER SCHOLARSHIP FUND of \$5,125, established on his fortieth reunion at Dickinson College by some of his former students at Jefferson Medical School and others. The income to be given in the second semester of his Senior year at Dickinson College to that student who has been accepted for admission to medical school for the following September and who has the greatest financial need, as determined by the President, Treasurer, and Premedical Adviser of Dickinson College.

THOMAS MONTGOMERY SCHOLARSHIP FUND of \$6,030, the gift of Colonel Robert H. Montgomery, LL.D., in memory of his father, Thomas Montgomery, a member of the Class of 1851.

THE NEW JERSEY CONFERENCE OF THE METHODIST CHURCH SCHOLARSHIP FUND of \$500, granted annually, by the Commission on Higher Education of the New Jersey Conference, to a student who has been a member of a Methodist Church within the bounds of the Conference.

THE MARLIN E. OLMSTED SCHOLARSHIPS, established in 1925 by Mrs. Marlin E. Olmsted (Mrs. Vance C. McCormick) in memory of her husband, Marlin E. Olmsted, an honorary alumnus of the College. The scholarships, the proceeds of a capital fund of \$5,000, shall be given each year at the discretion of the President of the College, to such students of good mind, good character, and studious habits as seem to need them for the successful continuance of their course in College.

THE CHARLES E. PETTINOS SCHOLARSHIP FUND of \$21,500, established by the Charles E. and Joy C. Pettinos Foundation; the income to be awarded annually as a scholarship in the name of Mr. Pettinos, former College Trustee.

THE WILMER WESLEY SALMON SCHOLARSHIP FUND of \$285,126.91, established in 1961 under the will of Cora Belle Salmon in memory of her husband, Wilmer Wesley Salmon, of the Class of 1886 and a trustee of the College 1913-31, the income therefrom to be awarded annually by the President of the College to needy and worthy male students to enable them to complete their education at Dickinson College.

THE VALERIE SCHALL SCHOLARSHIP of \$75, proceeds of a \$1,500 fund, is used in assisting such young men as, in the estimation of the President and Faculty of the College, are of good character, scholarly habits, and deserving of assistance, and who are approved candidates for the Methodist ministry.

THE CHARLES T. SCHOEN SCHOLARSHIPS, ten in number, of \$50 each, established by the \$10,000 gift of the late Charles T. Schoen, of Philadelphia, are awarded annually to such young men and women as the President may designate.

THE ARNOLD BISHOP AND MARY AGNES SHAW SCHOLARSHIP, the annual income from \$1,250, the contribution of their children, Miss Clara W. Shaw, Mrs. Bertha Shaw Neyling, Mrs. Jeanne Shaw Bailey, Calvin Bishop Shaw, Charles M. Shaw. The donors may designate annually some worthy young person in the College in need of financial help.

JAMES ROSS SNOWDEN SCHOLARSHIP FUND, created in the will of Mary T. Snowden Stansfield, of Philadelphia, Pa., by the bequest of \$10,000 for the endowment of a law



scholarship in memory of her father, the son of the Reverend Nathaniel Randolph Snowden, a trustee of the College from 1794 to 1827.

THE WILLIAM M. STAUFFER SCHOLARSHIP FOUNDATION, the bequest of \$950 of W. M. Stauffer, of Reading, Pa., in 1917, "to be invested as a special scholarship endowment, the income to be used for the benefit of some deserving student."

THE CAPTAIN JOHN ZUG STEESE SCHOLARSHIP, the interest on a \$1,000 endowment, the gift of his mother, Mrs. Anna Zug Schaeffer Steese, of Mt. Holly Springs, Pa., who has sent four sons to Dickinson, all of whom later served their country with distinction as commissioned officers of the army during World War I; to be awarded annually by the President of the College to some young man who has completed his Sophomore year in the upper third of his class, excelling especially in mathematics; who has engaged successfully in athletics, music, dramatics, or other extra-curricular activities, and to whom financial aid would be real assistance in helping him to continue his college course.

THE MARTIN VAN BLARCOM SCHOLARSHIP FUND of \$3,900, the gift of Martin Van Blarcom, 1911, of Croton-on-Hudson, N. Y., the income thereof to be awarded annually by the President of the College to a needy and worthy student, preference to be given to a resident of Westchester County of N. Y. and when unassigned to be used for operating costs of the College.

THE MOSES VAN CAMPEN CHAPTER D. A. R. SCHOLARSHIP FUND of \$10,000, the gift of Miss Elizabeth A. Low, of the Class of 1891, of Bloomsburg; the income to be awarded annually by the President of the College to a needy and worthy student, preference to be given to students from Columbia County.

THE JULIA VAN DUSEN SCHOLARSHIP FUND of \$5,000, established in 1962 by Henry Logan of the Class of 1910, the income therefrom to be awarded annually by the President of the College to a needy and worthy student, with preference given to residents of New York City area. During his lifetime, the donor reserves the right to name the recipient. Thereafter, the award may be made on recommendation of Dickinson Alumni Clubs in New York City or vicinity.

THE ALBERT AND NAOMI WATSON SCHOLARSHIP FUND of \$4,000, the gift of Mr. and Mrs. Albert Watson, of Carlisle, Pa., the income therefrom to be awarded annually by the President of the College to a needy and worthy student, preference to be given to a resident of Carlisle.

THE M. WILLIAM WEDELL SCHOLARSHIP FUND of \$15,000, established in 1948 through a gift of Meta Hofer, of Brooklyn, N. Y., in memory of her brother, M. William Wedell. The income therefrom is assigned annually in the form of a scholarship or several scholarships by the President of the College and when unassigned is used for the operating needs of the College.

M. HELEN LEHMAN WHITMOYER MEMORIAL FUND of \$1,000, the gift of Raymond B. Whitmoyer of the Class of 1913 in memory of his deceased wife, M. Helen Lehman Whitmoyer, of the Class of 1911.

THE ELLA STICKNEY WILLEY SCHOLARSHIP of \$50, established by the \$1,000 gift of Mrs. Ella Stickney Willey, of Pittsburgh, Pa., is awarded annually to such students as may be designated by the donor or by the President.

THE ANNIE WINDOLPH SCHOLARSHIP FUND of \$10,392, established by the bequest of Annie Windolph, the income of which is available to a student or students taking pre-dental work.



THE REVEREND WILLIAM WOOD SCHOLARSHIP of \$100, the income from the \$2,000 gift of Miss Sarah Wood, of Trenton, N. J., is awarded annually to such student as may be designated by the donor or by the President.

JOHN L. YARD SCHOLARSHIP FUND received in 1945 by a bequest totaling \$4,172.94 to establish three memorial scholarships in memory of testator's wife, Emmeline Matilda Van Rensselaer Yard, to be given each year at the discretion of the President of the College to students of good mind, good character, and studious habits, preference to be given to students desiring to enter the ministry who seem to need financial aid for the successful continuance of their courses in college.

THE CHARLES K. ZUG MEMORIAL FUND, a fund of \$5,366 given in January 1930, by the late Lemuel Towers Appold, Esq., Class of 1882, of Baltimore, in memory of his intimate friend, Charles K. Zug, of Philadelphia, Class of 1880, Phi Beta Kappa, a member of the Alumni Council, and for many years a faithful friend and trustee of the College. The income from this fund to be used at the discretion of the President in granting scholarship aid to worthy young men students.

## UNENDOWED

THE MARY DICKINSON CLUB SCHOLARSHIP of \$500 a year established in 1960, to be awarded by the President of the College upon nomination of the President of the Mary Dickinson Club to a needy and worthy Freshman girl of high academic standing, which may be renewed for the Sophomore, Junior, and Senior years providing that she needs the award to continue in College, maintains satisfactory scholastic standing, and is cooperative in following the rules and aims of the College.

THE AMANDA H. BAKER SCHOLARSHIP, the gift of John S. Snyder and his Company, in memory of the mother of Marion Ellen Baker, of the Class of 1931, the amount of \$250 awarded annually to a student from the White Plains High School, White Plains, New York, or Scarsdale High School, Scarsdale, New York, who is able to demonstrate the need for financial assistance.

THE PAN-HELLENIC COUNCIL SCHOLARSHIP, established by the women's sororities of Dickinson College, is awarded by the President of the College upon nomination of the Pan-Hellenic Council to a needy and deserving woman foreign student, or to an upper-classwoman, preferably a sorority woman.

THE AERO OIL COMPANY SCHOLARSHIP FUND of \$600 annually, is to be awarded to a deserving student from the area in which this company operates, and is administered by the College in accordance with its regulations and procedures for the award of other scholarships.

## LOAN FUNDS

In addition to student loans from funds listed below, student loans are available under the terms of Title II of the National Defense Education Act of 1958 (Public Law 85-864).

THE CORNELIA C. THUMM FUND, \$950, the legacy of Mrs. Cornelia C. Thumm, of Philadelphia, 1896, the annual interest on which is to be used for the benefit of some needy student or students of the College, the conditions of appointment and the selection of beneficiaries to rest with the President.

THE EMILY MAY PHELPS ATWOOD LOAN FUND, of \$6,051.50, established in 1942 by her parents, Mr. and Mrs. Andrew H. Phelps, to aid worthy students.

THE CLARA RIEGEL STINE FUND of \$4,457.26, the legacy of Clara Riegel Stine, of Mechanicsburg, Pa., held in trust by the Pennsylvania Company for Insurances on Lives and Granting Annuities of Philadelphia, to be used under a loan plan to assist in education of needy and worthy students studying for the ministry of The Methodist Church.

MARIA ELIZABETH VALE STUDENT'S SELF-HELP FUND, the income from a fund of \$25,000, the gift of Ruby R. Vale, Esq., of the Class of 1896, in memory of his daughter, now deceased, and because of his affection for his Alma Mater, and his desire to aid worthy students at the College needing temporary help. Administered by the President with permission to lend \$250 per year to an individual, but not to exceed \$1,000 to anyone during the college course.

THE MARY A. WILCOX, CLASS OF 1896, ENDOWED FUND of \$2,000, established in 1962 by her sister, A. Dorothea Wilcox, in memory of Mary A. Wilcox, Phi Beta Kappa of Class of 1896, who directs that said sum shall form part of the student loan fund and desires that it be perpetuated as a memorial in such manner as the appropriate governing body shall direct.

AMERICAN BANKERS ASSOCIATION FOUNDATION FOR EDUCATION IN ECONOMICS LOAN SCHOLARSHIP. One loan scholarship of \$250 per year. Consult the Treasurer of the College.

BOARD OF EDUCATION OF THE METHODIST CHURCH STUDENT LOAN FUND. Open to members of that Church of at least one year's standing, \$250 in the Freshman year, \$300 in the Sophomore year, \$350 in the Junior year, and \$400 in the Senior year. The total borrowings must not exceed \$2,000. Consult the Treasurer of the College.

CENTRAL PENNSYLVANIA CONFERENCE LOAN FUND. Consult the Treasurer of the College. The maximum per year for a student is \$200, and the total amount loaned to any one person is limited to \$800 during the college course. Five cash scholarships per year of \$100 each are also available from this fund.

THE CLASS OF 1909 SCHOLARSHIP FUND, the interest on an accumulating fund which was presented to the College on the thirty-fifth reunion of the Class, and, on June 30, 1946, amounted to \$2,300, available in the form of scholarship-loan aid to students by appointment of the President of the College, preference to be given to any descendant of a member of the Class of 1909.

THE EMERGENCY LOAN FUND. A fund for temporary small loans in cases of emergency. The principal of the fund, contributed by the alumni, is used as directed by the President of the College.

Students of the College may be eligible for other loan funds which are not administered by the College. Information concerning such funds may be obtained from the College Treasurer.

## STUDENT EMPLOYMENT

Opportunities are available for a number of students to meet part of their expenses by regular work in certain of the college offices and facilities. The award of a scholarship, grant-in-aid, or loan does not preclude the student's receiving part-time employment through the College. Applications for such positions may be made to the Dean of Students, who will certify the request in accordance with the student's need and abilities and the positions available.



# The Directory



# Board of Trustees

## OFFICERS

Boyd Lee Spahr, A.M., LL.D., D.C.L.	Honorary President
Sidney D. Kline, A.M., LL.B., LL.D.	President
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## MEMBERS OF THE BOARD

Howard L. Rubendall, A.B., D.D., B.D., L.H.D.	<i>Ex Officio</i>
George Shuman, Jr., Ph.B., LL.D.	<i>Ex Officio</i>

### FIRST ELECTED

### TERM EXPIRES 1964

1950	C. Scott Althouse, Sc.D.	Reading
1960	Winfield C. Cook, A.B. ( <i>Alumni Trustee</i> )	Plymouth Meeting
1944	Fred P. Corson, D.D., LL.D., J.U.D.	Philadelphia
1945	William L. Eshelman, Ph.B.	Mohnton
1954	Mary Sharp Foucht	Chicago, Ill.
1954	Lewis F. Gayner, A.B., M.B.A.	Rosemont, Minn.
1954	F. LaMont Henninger, A.M., B.D., Th.D., S.T.D.	Harrisburg
1945	Sidney D. Kline, A.M., LL.B., LL.D.	Reading
1958	Harry W. Lee, LL.B., LL.D.	Reading
1953	Henry Logan, A.M., LL.B.	Brooklyn, N. Y.
1950	David M. Wallace, A.M., LL.B.	Harrisburg
1959	Lester A. Welliver, A.B., M.A., D.D., LL.D.	Harrisburg

### TERM EXPIRES 1965

1952	Carl C. Chambers, Sc.D.	Philadelphia
1953	Joel Claster, D.C.S.	Philadelphia
1933	Sumner M. Drayer	Baltimore, Md.
1957	Helen Douglass Gallagher, A.B. ( <i>Alumni Trustee</i> )	Short Hills, N. J.
1949	Paul L. Hutchison, A.M., LL.B.	Camp Hill
1958	Edward G. Latch, A.B., B.D., A.M., D.D.	Washington, D. C.



1961	Gilbert Malcolm, A.M., LL.B., LL.D.	Carlisle
1946	Frank E. Masland, Jr., HH.D., LL.D.	Carlisle
1961	W. Vernon Middleton, M.A., Ph.D., D.D., LL.D.	Pittsburgh
1959	John B. Peters, Ph.B.	Gardners
1930	S. Walter Stauffer, Ph.B.	York
1948	Robert A. Waidner, A.B., LL.B.	Baltimore, Md.

## TERM EXPIRES 1966

1960	William H. Baker	York
1961	Sherwood M. Bonney, A.B., LL.B.	Scarsdale, N. Y.
1959	C. Wendell Holmes, A.B., A.M.	Drexel Hill
1958	William S. Jenkins, Ph.B., LL.B.	Frostburg, Md.
1962	Roy R. Kuebler, Jr., A.B., A.M., Ph.D. ( <i>Alumni Trustee</i> )	Chapel Hill, N. C.
1954	W. Gibbs McKenney, Ph.B., LL.B.	Baltimore, Md.
1944	Roy W. Mohler, M.D., Sc.D.	Philadelphia
1917	Robert F. Rich, Ph.B., LL.D.	Woolrich
1908	Boyd Lee Spahr, A.M., LL.D., D.C.L.	Philadelphia
1962	Boyd Lee Spahr, Jr., A.B., LL.B.	Philadelphia
1948	Samuel W. Witwer, Ph.B., LL.B., LL.D.	Kenilworth, Ill.

## TERM EXPIRES 1967

1961	Rolland L. Adams	Bethlehem
1959	Roscoe O. Bonisteel, LL.B., D.Sc., LL.D.	Ann Arbor, Mich.
1943	James T. Buckley, D.Eng.	Philadelphia
1959	J. Milton Davidson, A.B., Ed.M.	Wayne
1963	Weston C. Overholt, Jr., A.B., LL.B. ( <i>Alumni Trustee</i> )	Springfield
1958	Edward C. Raffensperger, Sc.B., M.D.	Philadelphia
1957	Alexander K. Smith, A.B., D.D.	Jenkintown
1959	J. Millard Tawes, LL.D.	Crisfield
1950	Glenn E. Todd, Ph.B.	Carlisle
1952	Robert E. Woodside, A.B., LL.D.	Millersburg

## EMERITI

1932	Charles C. Duke	Baltimore, Md.
1955	Herbert M. Gould, LL.B., D.B.A.	Birmingham, Mich.
1925	Dean Hoffman, A.B.	St. Petersburg, Fla.
1943	Karl E. Richards, Ph.B.	Harrisburg

# Standing Committees of the Board

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C. Scott Althouse  
Roscoe O. Bonisteel  
Sherwood M. Bonney  
Carl C. Chambers  
Fred P. Corson  
J. Milton Davidson

Sumner M. Drayer  
Paul L. Hutchison  
Gilbert Malcolm  
Frank E. Masland, Jr.  
W. Gibbs McKenney  
Roy W. Mohler

Robert F. Rich  
Howard L. Rubendall  
S. Walter Stauffer  
David M. Wallace  
Samuel W. Witwer  
Robert E. Woodside

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Helen Douglass Gallagher

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Robert E. Woodside

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Alumnus

Sidney D. Kline

Ex Officio

Boyd Lee Spahr

Ex Officio

William M. Smith

Undergraduate

Andrew Y. Rogers

Undergraduate

David B. Eavenson

Secretary

## Officers of Administration

HOWARD LANE RUBENDALL *The President of the College, Lemuel T. Appold Foundation* A.B., Dickinson College, 1931; D.D., 1945; B.D., Union Theological Seminary, 1937; L.H.D., Trinity College, 1957.

SAMUEL HAYS MAGILL *Dean of the College, Assistant Professor of Religion* A.B., University of North Carolina, 1950; B.D., Yale University Divinity School, 1953; Ph.D., Duke University, 1962.

BENJAMIN DAVID JAMES *Dean of Students, Richard V. C. Watkins Professor of Psychology and Education* A.B., Dickinson College, 1934; M.A., Bucknell University, 1936; Ph.D., University of Pennsylvania, 1962.

GEORGE SHUMAN, JR. *Financial Vice-President and Treasurer* Ph.B., Dickinson College, 1937; LL.D., Lycoming College, 1958.

DAVID ROWE JEFFERSON *Dean of Admissions with Rank of Assistant Professor of Sociology* B.A., Harvard University, 1953; B.D., Yale University, 1956.

JOSEPH REED WASHINGTON, JR. *College Chaplain, Assistant Professor of Religion* B.A., University of Wisconsin, 1952; B.D., Andover Newton Theological School, 1957; Th.D., Boston University, 1961.

ARTHUR DWIGHT PLATT *Executive Assistant to the President* B.S., Trinity College, 1928; M.A., Columbia University, 1935.

RICHARD D. CHESHIRE *Director of Development* B.A., Colgate University, 1958; M.Ed., University of New Hampshire, 1961.





# Administrative Staff

*William H. Benson, B.S.	Registrar
*N. Ronald Pease, M.A.	Dean of Men
*Barbara S. Wishmeyer, M.S.	Dean of Women
*Charles C. Sellers, Litt.D.	Librarian, Historian
*Nancy J. Loughridge, M.A.L.S.	Acting Librarian
Martha C. Carson, M.S. in L.S.	Reference and Documents Librarian
Cordelia M. Neitz, B.S. in L.S.	Catalogue Librarian
Cordelia W. Swinton, M.L.S.	Cataloguer
Margaret P. Duncan, A.B.	Secretary to the President
Mary Ann Funk, M.Ed.	Secretary, President's Office
David B. Eavenson, B.S.	Director of Athletics
Roger L. Doran, A.B.	Director of Information Services
Roger H. Steck, Ph.B.	Director of News Bureau
Evan C. Frey, A.B.	Director of Annual Giving
Thomas H. Young, Jr., A.B.	Alumni Secretary
Alva A. Franckle	Superintendent of Grounds and Buildings
Allen I. Rowe, C.P.A.	Comptroller
Carl J. Adams	Assistant Treasurer
C. O. Williams, Ed.D.	Assistant in Admissions
Roger M. Craver, A.B.	Assistant to the Dean of Admissions
Stephen B. Coslett, Ph.D.	Director of Counseling
Robert A. Fisher, M.D.	Consulting Psychiatrist
Edward S. Kronenberg, Jr., M.D.	Senior College Physician
Frank S. Bryan, M.D.	College Physician
H. Robert Gasull, Jr., M.D.	College Physician
William C. Taft, M.D.	College Physician
Luther M. Whitcomb, M.D.	College Physician
Oneta M. Fink, R.N.	Director of the Health Center
Esther M. Bushey, R.N.	Assistant Director of the Health Center
Fred N. Roe	Placement Officer
Josephine W. McClung	Head Resident, Morgan Hall
Heber R. Harper, M.A.	Head Resident, East College
Emma L. Grubb	House Director, Adams Hall
Beulah M. Thomas	House Director, Adams Hall
Austra Treicis	House Director, Drayer Hall
Amelia Anderson	House Director, Drayer Hall
Blanche Moore	House Resident, McIntire House
Anne Stover	House Resident, Sellers House
Anna Robert	Assistant House Resident
Evelyn A. Cohick	Circulation Librarian
Ethel Heine	Order Librarian
Dorothy R. Weigel, B.S.	Periodicals Librarian

\*See faculty listings

# Faculty

HOWARD L. RUBENDALL

*President of the College*

SAMUEL H. MAGILL

*Dean of the College*

WARREN J. GATES

*Secretary of the Faculty*

## EMERITI

**William Wilcox Edel** *The President of the College, Emeritus* A.B., Dickinson College, 1915; A.M., 1919; D.D., 1935; S.T.B., Boston University School of Theology, 1921; L.H.D., Keuka College, 1944; D.D., Hobart College, 1944; LL.D., Gettysburg College, 1949; LL.D., University of Pennsylvania, 1949; D.Hu., Boston University, 1950; J.U.D., Lebanon Valley College, 1956; F.I.A.L., 1959.

**Gilbert Malcolm** *The President of the College, Emeritus* Ph.B., Dickinson College, 1915; A.M., 1917; LL.D., 1963; LL.B., Dickinson School of Law, 1917; LL.D., 1961; LL.D., Western Maryland College, 1948.

**Herbert Wing, Jr.** *Robert Coleman Professor Emeritus of History* A.B., Harvard College, 1909; A.M., University of Wisconsin, 1911; Ph.D., 1915; L.H.D., Dickinson College, 1960.

**Lewis Guy Rohrbaugh** *Thomas Bowman Professor Emeritus of Philosophy and Religion* A.B., Dickinson College, 1907; A.M., 1910; B.D., Drew Theological Seminary, 1910; Ph.D., State University of Iowa, 1922.

**Milton Walker Eddy** *Professor Emeritus of Biology* B.S., Northwestern University, 1910; M.S., 1912; Ph.D., University of Pennsylvania, 1929.

**Wellington Amos Parlin** *Professor Emeritus of Physics* A.B., Simpson College, 1921; M.S., University of Iowa, 1922; Ph.D., Johns Hopkins University, 1929.

**John Crawford Milton Grimm** *Professor Emeritus of Romance Languages* B.A., Ohio State University, 1911; M.A., 1912; Ph.D., University of Pennsylvania, 1916.

**Josephine Brunyate Meredith** *Professor Emerita of English* A.B., Dickinson College, 1901; A.M., 1902; D. Lit., 1952.

**William Drum Gould** *George Henry and Bertha Curry Ketterer Professor Emeritus of Philosophy and Religion* A.B., Wesleyan University, 1919; B.D., Garrett Biblical Institute, 1922; Ph.D., Boston University, 1929.



**Charles David Kepner** *Professor Emeritus of Sociology* B.A., Williams College, 1916; A.M., Harvard University, 1917; S.T.B., Andover Theological Seminary, 1922; Ph.D., Columbia University, 1936.

**May Morris** *Professor Emerita of Library Science* Ph.B., Dickinson College, 1909; Graduate, Pratt Institute School of Library Science, 1917.

**Mary Buckley Taintor** *Professor Emerita of Romance Languages* A.B., Ripon College, 1911; A.M., Leland Stanford Jr. University, 1918.

**Friedrich Sandels** *Professor Emeritus of German* Ph.D., University of Giessen, Germany, 1912.

**James Clair McCullough** *Richard V. C. Watkins Professor Emeritus of Education* Ph.B., Dickinson College, 1909; A.M., 1912; Ph.D., New York University, 1939.

**Ralph Schecter** *Thomas Beaver Professor Emeritus of English Literature* A.B., University of Illinois, 1916.

**Edgar Moore Finck** *Henry Ford Professor Emeritus of Education* Litt.B., Princeton University, 1910; M.A., 1912; Ph.D., New York University, 1930.

**Richard Henry McAndrews** *Associate Professor Emeritus of Physical Education* D.P.E., Dickinson College, 1959.

**Asa W. Climenhaga** *Associate Professor Emeritus of Education* A.B., Taylor University, 1919; M.A., Wittenberg College, 1940; Ed.D., Syracuse University, 1945.

## PROFESSORS

**Horace Elton Rogers** *Alfred Victor duPont Professor of Analytical Chemistry, Chairman of the Department of Chemistry* B.S., Dickinson College, 1924; M.S., Lafayette College, 1925; Ph.D., Princeton University, 1930.

**Elmer Charles Herber** *Professor of Biology, Chairman of the Department of Biology, Marshal of the College* A.B., Ursinus College, 1925; A.M., University of Pennsylvania, 1929; Sc.D., Johns Hopkins University, 1941.

**William Sloane** *Martha Porter Sellers Professor of English* A.B., Hamilton College, 1932; M.A., Columbia University, 1933; Ph.D., 1947.

**Charles Coleman Sellers** *Librarian with Rank of Professor, Historian of the College* B.A., Haverford College, 1925; M.A., Harvard University, 1926; Litt.D., Temple University, 1957.

**Arthur Max Prinz** *Professor of Economics* Ph.D., University of Berlin, 1923.

**Milton Embick Flower** *Professor of Political Science, Chairman of the Department of Political Science, Assistant Marshal* A.B., Dickinson College, 1931; A.M., Columbia University, 1938; Ph.D., 1946.

**Henry Lincoln Yeagley** *The Joseph Priestley Professor of Natural Philosophy; Professor of Physics and Astronomy, Assistant Marshal* B.S., Pennsylvania State University, 1925; M.S., 1927; Ph.D., 1934.

**Donald Turner Graffam** *Professor of Psychology and Education* A.B., University of Redlands, 1926; A.M., University of Southern California, 1933; Ed.D., 1949.

**Herbert Ellis Newman** *Professor of Economics, Chairman of the Department of Economics* A.B., Birmingham-Southern College, 1936; A.M., University of Virginia, 1938; Ph.D., 1940.

**Joseph Harris Schiffman** *Professor of English, Chairman of the Department of English* B.A., Long Island University, 1937; M.A., Columbia University, 1947; Ph.D., New York University, 1951.

**Howard Charles Long** *Professor of Physics, Chairman of the Department of Physics and Astronomy, Assistant Marshal* A.B., Northwestern University, 1941; Ph.D., Ohio State University, 1948.

**Amos Benjamin Horlacher** *Professor of English, Assistant Marshal* A.B., Wesleyan University, 1926; S.T.B., Union Theological Seminary, 1929; D.D., Wesleyan University, 1943; M.A., Columbia University, 1952; Ed.D., 1957.

**William Robert Bowden** *Professor of English* A.B., Haverford College, 1935; A.M., Duke University, 1937; Ph.D., Yale University, 1948.

**Caroline Heath Kennedy** *Professor of Modern Languages* A.B., Birmingham-Southern College, 1926; M.A., Alabama University, 1930; Docteur D'Université, Université Laval, 1942.

**William Wright Kirk** *Professor of Modern Languages* A.B., University of Delaware, 1930; M.A., Middlebury French School, 1935; Ph.D., University of Illinois, 1955.

**Ferdinando Dante Maurino** *Professor of Romance and Classical Languages and Literatures* A.B., City College of New York, 1939; A.M., Columbia University, 1941; Ph.D., 1948.

**J. William Frey** *Visiting Professor of Russian* A.B., Dickinson College, 1937; A.M., University of Illinois, 1939; Ph.D., 1941.

**Winthrop Cecil Difford** *Professor of Geology, Chairman of the Department of Geology, Assistant Mace Bearer.* B.S., Mt. Union College, 1943; M.S., West Virginia University, 1947; Ph.D., Syracuse University, 1954.

**Clarence Oscar Williams** *Visiting Professor of Education, Assistant in Admissions* B.S., Central Missouri State College, 1921; M.A., Teachers College, Columbia University, 1928; Ed.D., New York University, 1936.

**Charles Flint Kellogg** *Professor of History, Chairman of the Department of History* A.B., Bard College of Columbia University, 1931; M.A., Harvard University, 1933; L.H.D., Bard College, 1960; Ph.D. Johns Hopkins University, 1963.

**Francis Wayland Warlow** *Professor of English* A.B., Johns Hopkins University, 1931; M.A., University of Pennsylvania, 1946; Ph.D., 1959.

**David Ivan Gleim** *Professor of Chemistry, Mace Bearer* B.S., Franklin and Marshall College, 1918; M.A., Columbia University, 1920.

**Margaret McAlpin Ramos** *Professor of Modern Languages* A.B., Syracuse University, 1931; M.A., University of Tennessee, 1948.

**Walter McKinley Miller** *Professor of Mathematics* Ph.B., Lafayette College, 1918; M.A., Pennsylvania State University, 1922; Ph.D., University of Illinois, 1927.

**Paul Francis Mathew Angiolillo** *Professor of French Language and Literature, Chairman of the Department of Modern Languages* A.B., Columbia University, 1938; A.M. in French, Graduate School, Columbia University, 1939; Ph.D., 1946; Post-



Doctoral Studies, University of Geneva, 1946-47; Chevalier, 1956; Officier des Palmes Académiques, 1961.

**Cam Jennings Hurst, Jr.** *Professor of Military Science* B.A., San Francisco State College, 1960; Major, Infantry, U. S. Army.

**Roger Eastman Nelson** *Professor of Mathematics* B.S., United States Naval Academy, 1922; M.A., Dartmouth College, 1946.

**John Christian Pflaum** *Professor of History* B.S., University of Pennsylvania, 1925; M.A., 1929.

**Ray H. Crist** *Visiting Professor of Chemistry* A.B., Dickinson College, 1920; Sc.D., 1960; A.M., Columbia University, 1922; Ph.D., 1926.

**Mary R. Learned** *Visiting Professor of Romance Languages* A.B., Dickinson College 1921; M.A., University of North Carolina, 1923; Ph.D., Radcliffe College, 1943.

**Robert Stanley Whitehouse** *Visiting Professor of Modern Languages* Graduate, Western Kentucky State Teachers College, 1916; B.A., Birmingham-Southern College, 1925; M.A., University of Rochester, 1937.

## ASSOCIATE PROFESSORS

**\*Alan Coutts** *Associate Professor of Speech* B.S., Oregon State College, 1931; M.A., Northwestern University, 1936.

**Warren James Gates** *Associate Professor of History, Secretary of the Faculty* A.B., Duke University, 1941; A.M., University of Pennsylvania, 1947; Ph.D., 1951.

**William Howard Benson** *Registrar, Associate Professor of Mathematics* B.S., U. S. Naval Academy, 1925; Graduate, U. S. Navy Postgraduate School, 1934.

**M. Benton Naff** *Associate Professor of Chemistry* B. S., University of Kentucky, 1941; M.S., 1946; Ph.D., Oregon State College, 1950.

**Richard Mae Sia** *Associate Professor of Physics* B.S., Northwestern University, 1928; M.S., University of Chicago, 1932.

**Herbert Royce** *Associate Professor of Modern Languages* Dr.rer.pol., University of Kaliningrad, 1926.

**Donald William Flaherty** *Associate Professor of Political Science* A.B., Syracuse University, 1943; Ph.D., 1954.

**David Balbach Eavenson** *Associate Professor of Physical Education, Chairman of the Department of Physical Education, Director of Athletics* B.S., Bucknell University, 1954.

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